



Guidance Manual

for complying with the



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State of California

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California Environmental Protection Agency

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California Environmental Protection Agency

Department of Toxic Substances Control

Office of Pollution Prevention
and Technology Development

Guidance Manual

for complying with the

HAZARDOUS

WASTE

SOURCE

REDUCTION

&

MANAGEMENT

REVIEW ACT

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Document Availability

One complimentary paper copy may be requested by contacting the Office of Pollution Prevention and Technology Development (OPPTD) as noted below. A nominal charge is made for additional paper copies.

The Guidance Manual is available from OPPTD's web site at <<http://www.dtsc.ca.gov/sppt/pptd/>>.

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Acknowledgments

Throughout the implementation of the Hazardous Waste Source Reduction and Management Review Act of 1989, OPPTD received comments and suggestions from a variety of individuals and groups, including private citizens, small and large corporations, environmental associations, trade associations, academia, consulting firms, and local, state and federal agencies. OPPTD sincerely appreciates your interest and participation in the development and implementation of this unique and innovative program.

Disclaimer

The Guidance Manual does not supersede the Hazardous Waste Source Reduction and Management Review Act of 1989 or its implementing regulations. Generators or those who prepare documents for generators should read the Act and the regulations before using this guidance manual to prepare any source reduction document.

Contacting OPPTD

If you have questions or comments regarding this manual, the Hazardous Waste Source Reduction and Management Review Act of 1989, the regulations, or the Source Reduction Unit, you may contact OPPTD by

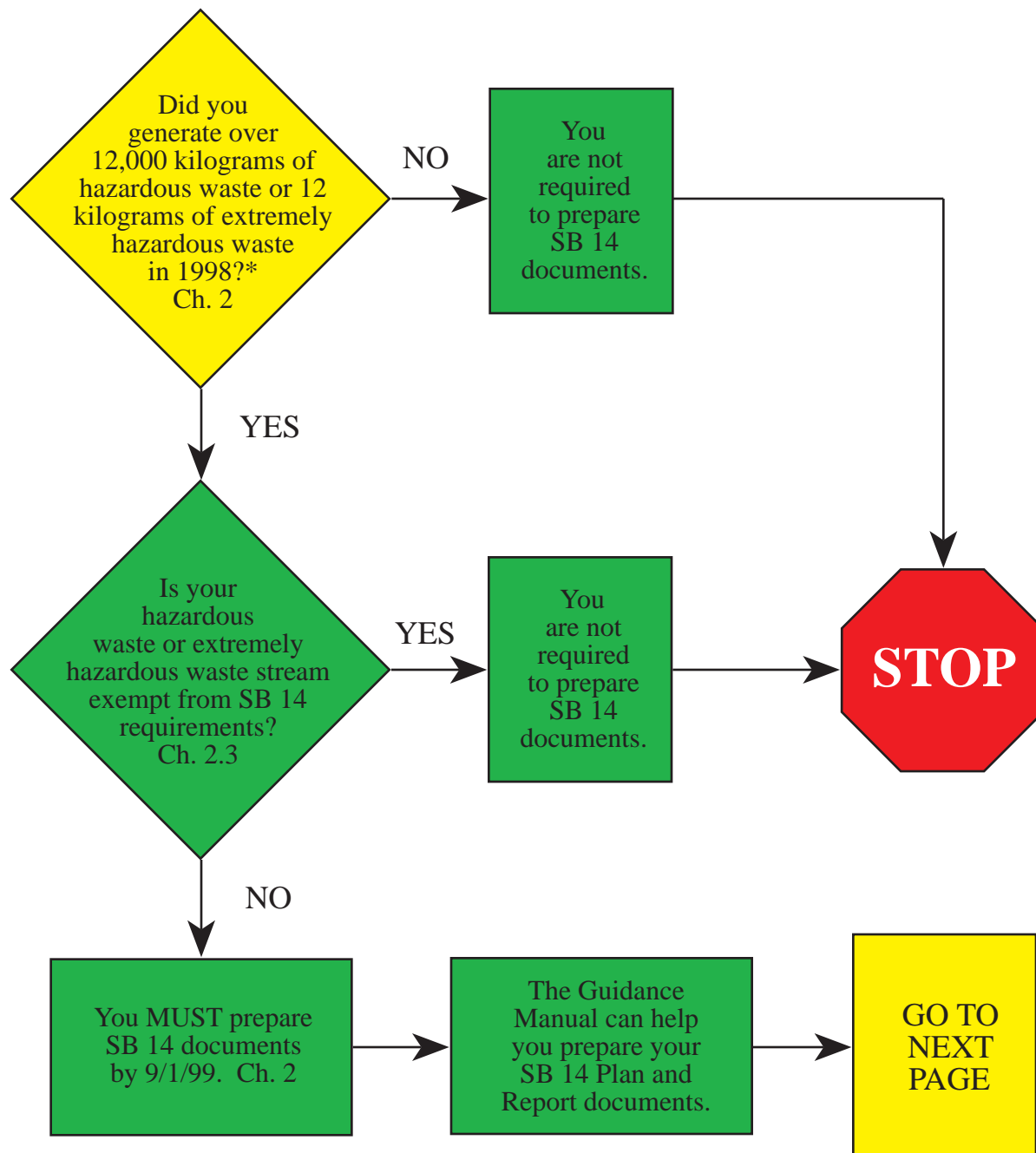
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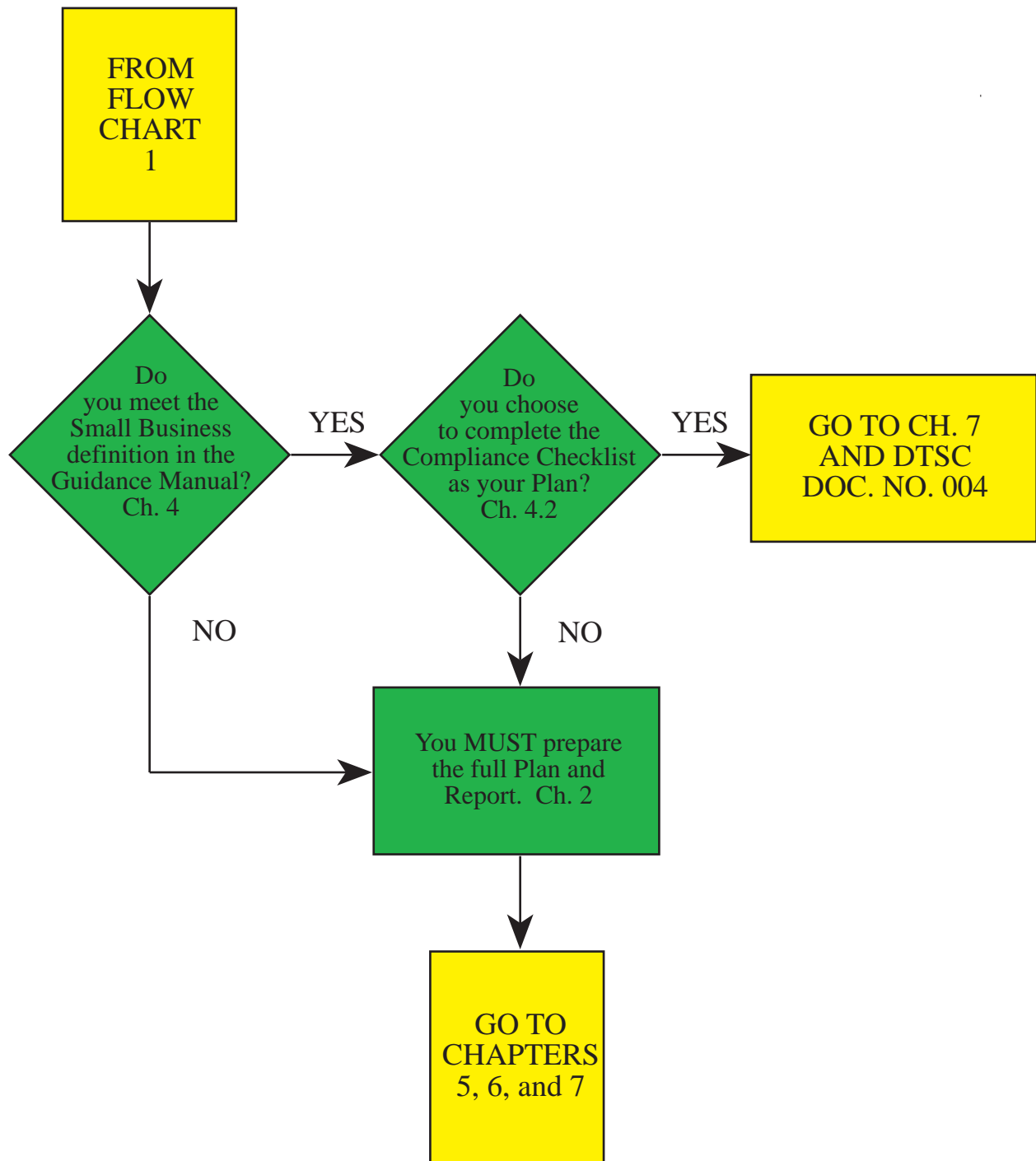
EMAIL Send your questions about complying with SB 14 to <sb14@dtsc.ca.gov>.
Send requests for OPPTD publications listed in Appendix E to
<opptddoc@dtsc.ca.gov>.

SB 14 Guidance Flowchart



* Aqueous wastes or exempt wastes can affect this decision chart. Consult Chapters 2.3 and 5.5 of the Guidance Manual to adjust for these wastes. **This chart is for guidance purposes only.** Consult the Guidance Manual to confirm SB 14 applicability to your waste stream.

SB 14 Guidance Flowchart



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Preface

SB 14 intends to enable businesses to document their source reduction planning activities. A business is not required to carry out actual measures that are not technically and economically feasible. This approach is based on the belief that generators will voluntarily carry out feasible measures that save the company money. Experience has shown that a general effective source reduction planning program must involve everyone in the company from the leadership of top management to the daily operations of the production people.

Sometimes companies hire a consultant or pollution prevention expert to conduct their source reduction audit and prepare the required SB 14 documentation. This approach reduces the opportunity for the essential buy-in of plant personnel, those who ultimately will be working with the selected measures. A better approach involves the plant personnel ultimately benefiting from the actual measures in developing the best source reduction method for their area of the plant. The role of a consultant would be to help this employee-based evaluation. This path follows the old saying, “If you give a man a fish, you feed him for a day. If you teach a man to fish, you feed him for a lifetime.”

Effective source reduction audits involve the same tools and strategies used to continuously improve business products and services. Look at quality-based source reduction planning as an opportunity to eliminate a production defect, remove a manufacturing inefficiency, or improve a product. Intimately involving more company employees in planning ingrains more of the resulting source reduction ethics into the corporate culture. This will ensure not only the selection of appropriate measures, but their continued improvement and most important, an ongoing company-wide source reduction approach to business operations.

Chapter 1 Introduction

1.1 About SB 14

The goal of the Hazardous Waste Source Reduction and Management Review Act of 1989 (commonly referred to as SB 14) is to:

- (1) reduce the generation of hazardous waste at its source,
- (2) reduce the release into the environment of chemicals that have adverse and serious health or environmental effects, and
- (3) document hazardous waste management information and make that information available.

SB 14 also encourages recycling where source reduction is not feasible or practicable. Where source reduction or recycling of hazardous waste is not feasible, the waste should be treated in an environmentally safe manner to minimize the present and future threat to health and the environment.

The Department of Toxic Substances Control (DTSC) adopted regulations to carry forward the intent and mandate of SB 14. The regulations provide generators the flexibility to use their knowledge of their own operations and procedures to reduce hazardous waste and prevent the release of pollutants to the environment. The regulations specify the format for documenting a careful review and evaluation of potential source reduction measures, rather than the waste management actions that must be taken.

A generator subject to SB 14 must prepare a Source Reduction Evaluation Review and Plan (Plan), Hazardous Waste Management Performance Report (Report), and Summary Progress Report (SPR) by September 1, 1999. A generator must send the completed SPR to DTSC's Office of Pollution Prevention and Technology Development (OPPTD) on or before September 1, 1999.

SB 14 and the Hazardous Waste Source Reduction and Management Review Act of 1989

Senate Bill (SB) 14 was introduced by former Senator David Roberti to add source reduction planning and reporting requirements for generators subject to the Hazardous Waste Control Law. The new source reduction requirements would appear as Article 11.9, under Chapter 6.5, Division 20 of the Health and Safety Code. SB 14 named Article 11.9 the "Hazardous Waste Source Reduction and Management Review Act of 1989." SB 14 was approved by former Governor George Deukmejian on October 1, 1989, and was chaptered by former Secretary of State March Fong Eu as Chapter 1218, Statutes of 1989.

Although SB 14 refers to the bill, state officials implementing the hazardous waste source reduction program and generators who must comply with the law commonly refer to the Hazardous Waste Source Reduction and Management Review Act of 1989 and its corresponding regulations as "SB 14."

The Plan is a prospective document and must include an estimate of the quantity of hazardous wastes generated, an evaluation of potential source reduction approaches, a timetable for implementing selected source reduction measures, and a four-year numerical. The Plan must also address the predicted effectiveness of selected measures at reducing hazardous waste and releases to all environmental medium (the air, land and water). **A generator who is a small business may choose to complete OPPTD's industry-specific checklists, Waste Audit Studies or Compliance Checklist in place of the Plan.** OPPTD developed the Compliance Checklist as an alternative format of the Plan for smaller businesses that have inadequate technical and financial resources for obtaining information and assessing source reduction methods.

The Report is a retrospective document and must include an assessment of the effect on waste generation of each waste management approach implemented since the baseline year, including source reduction, recycling and treatment measures. The Report can serve as a way for the generator to share with the public all of the positive efforts to improve the management of hazardous waste at the generator's site.

The Summary Progress Report summarizes the result of implementing the source reduction measures identified in the generator's previous Plan and the amount of reduction that the generator anticipates will be achieved by the implementation of source reduction measures selected in the current Plan.

1.2 About the Guidance Manual

The Office of Pollution Prevention and Technology Development developed the Guidance Manual to serve as a reference for hazardous waste generators preparing the source reduction documents required by SB 14. The topics presented in the Guidance Manual follow the general order of the SB 14 regulations. Separate sections help the reader determine if compliance with SB 14 is required, and when applicable, prepare a Plan, Report and SPR. Each major section references the corresponding SB 14 regulation.

In addition to addressing the regulatory requirements specified by SB 14, the Guidance Manual contains additional information to help and inspire those who are preparing source reduction documents. Suggestions, example formats, and stories of successful source reduction measures are placed within shaded boxes to indicate that the information is not a requirement of SB 14. OPPTD hopes that the suggestions make the process of preparing source reduction documents easier, reduce the number of errors, and increase the success of implementing source reduction measures.

The Appendices contain the following information which may be useful during the preparation of source reduction documents:

- SB 14 law and regulations
- List of Standard Industrial Classification codes
- List of California Waste Codes
- List of publications available from OPPTD
- List of Certified Unified Program Agencies (CUPAs : local hazardous waste

-
- enforcement agencies) and designated county agencies
- Lists to help track the preparation and completeness of source reduction documents

A Source Reduction Success - Children's Hospital Los Angeles

Children's Hospital Los Angeles (CHLA) has been operating since April 1, 1901 and is a 318-bed licensed acute care pediatric hospital. The facility supports one of the largest educational programs of any pediatric institution in the country. The CHLA operates schools of Physical Therapy, Medical Technology, and X Ray Technology. Because of the research facilities on campus, CHLA has larger and more diversified hazardous waste streams than other area hospitals.

Children's Hospital Los Angeles continues to implement innovative source reduction measures for all of their waste streams. In general, chemical purchases have steadily declined in the past five years while research and patient loads have increased. The following are a few examples of source reduction measures implemented at their hospital.

- Analysis and evaluation was done to assess how oils, lab chemicals, and solvents entered the industrial wastewater clarifier. Analysis showed chemical residues from the labware cleaning process entering the wastewater system. All excess waste in the labware was put through the cleaning systems with disregard to chemicals ending up in the clarifier. The clarifier had to be pumped and cleaned monthly with hot water and bleach to reduce hydrocarbon buildup. In fiscal year 1994-95, a program was initiated to train personnel in the maintenance of the cleaning system, use of the proper receptacles for the collection and disposal of chemical wastes, and use of the autoclave for cleaning and sterilization of labware.

In midyear 1995, hydrocarbon-reducing enzymes were introduced into the clarifier system to reduce hydrocarbons and alleviate the need for to pump and clean the clarifier monthly. No capital outlay was needed, pumping costs were reduced by \$1950 per month, and contaminated wastewater entering the POTW was reduced by 46,541 pounds per year.

- All laboratory euthanasia now uses carbon dioxide instead of ethyl ether. This input substitution has improved worker safety and reduced the reporting of extremely hazardous substances. In addition, there is a substantial cost difference between chemicals.
- Mercury thermometers, blood pressure cuffs, and related instruments/devices were replaced with non-mercury thermometers, and electronic/chemical piezometric devices. Replacement of mercury units with new electronic devices took place over a long period to ensure product manufacturers could provide equipment that was suitable for use in the pediatric setting. Electronic devices for blood pressure and thermometer reading are comparable in cost to instruments containing mercury because they do not have high disposal costs. In addition, the electronic devices do not pose a hazard to patients and workers.

Chapter 2 Applicability

2.1 Applicability Thresholds

SB 14 applies to a generator that, by site, routinely generates, through ongoing processes and operations, more than 12,000 kilograms of hazardous waste in a reporting year, or more than 12 kilograms of extremely hazardous waste in a reporting year.

The generator must sum the total hazardous waste generated at his/her site and subtract any wastes that are exempted, not routinely generated, or excluded per recycling law. If the total remaining wastes exceed either SB 14 threshold, the generator must prepare a Source Reduction Evaluation Review

and Plan (Plan), Hazardous Waste Management Performance Report (Report), and Summary Progress Report (SPR) by September 1, 1999. The generator must also send the completed SPR to OPPTD on or before September 1, 1999.

To determine the relevance of SB 14 to a specific site, the generator should understand the terms used in SB 14, identify wastes generated at the site that are excluded from SB 14, collect data on the weight of hazardous wastes and extremely hazardous wastes generated at the site during the reporting year, and be familiar with operations at the site.

Threshold Equivalents

12,000 kg = 26,400 lbs

12,000 kg = 13.2 tons

12,000 kg = 3,100 gallons

12 kg = 26.4 lbs

A Simple Method for Determining Applicability

Ask yourself the following questions to help determine if SB 14 applies to your site. Do not include exempted wastes, wastes not routinely generated, or excluded wastes.

1. Are total manifested waste quantities greater than SB 14 thresholds? “Yes” means you may be subject to SB 14.
2. Do you pretreat more than 3,100 gallons of hazardous aqueous wastes on-site prior to discharge under tiered permit authorization. “Yes” means you may be subject to SB 14.

If the answer to both 1 and 2 above is “no,” then ask the following question.

3. Is the total waste quantity in 1 and 2 above greater than SB 14 thresholds? “Yes” means you may be subject to SB 14.

NOTE: Refer to Section 2.3 of this chapter to determine how exemptions or exclusions may apply to your facility.

2.2 Terms and Definitions

The generator of a waste must determine if the waste is a **hazardous waste** or **extremely hazardous waste**. Sections 25115 and 25117 of the Health and Safety Code define extremely hazardous waste and hazardous waste, respectively. Section 66262.11 of Title 22, California Code of Regulations (CCR), provides the steps a generator must follow to determine if the waste is a hazardous waste or extremely hazardous waste.

Reporting year means the calendar year immediately preceding the year in which a source reduction document is to be prepared. For source reduction documents due September 1, 1999, the reporting year is calendar year 1998. The generation of hazardous waste can fluctuate from year to year. However, under SB 14, a generator considers only hazardous waste generated during the reporting year when determining if either applicability threshold is exceeded.

Routinely generate means repeatedly generated as part of a site's normal operations. Some operations may routinely generate waste less frequently than once a year. For example, a solvent dip tank is cleaned once every two years to remove sludge, or supplies in a warehouse are inventoried every five years to remove raw materials unsuitable for use. In these cases, the generated waste should be annually prorated over the time between generation episodes and added into the annual waste generation total for the reporting year. All other wastes that are not repeated (not routinely generated) should not be included.

Site is defined in section 25205.1(h) of the Health and Safety Code, and means "the location of an operation which generates hazardous wastes and which is noncontiguous to any other location of these operations owned by the generator." Noncontiguous is a key word. If two operations are touching and owned by the same person, the operations are on one site.

2.3 Exempted Waste Streams

DTSC exempts a waste stream from the requirements of SB 14 (but not from the management requirements of other Articles of Title 22, CCR) if the waste has no source reduction opportunities or is not routinely generated. A generator does not include an exempted waste stream when calculating the total weight of hazardous waste generated at a site. Exempted waste streams include:

- Motor vehicle fluids and motor vehicle filters
- Lead acid batteries
- Household hazardous wastes, wastes from household collection events, and wastes separated at community landfills
- Waste pesticides and pesticide containers collected by County agricultural commissioners
- Spent munitions and ordnance
- Decommissioned utility poles
- Oil generated from decommissioned refrigeration units
- Mercury relays and low-level radioactive tubes generated from removal of

telephone equipment.

- Lighting wastes including ballasts and fluorescent tubes.
- Waste from site cleanup and mitigation activities, including remedial investigations
- Samples and evidence from enforcement actions
- Asbestos
- Polychlorinated biphenyls (PCBs)
- Formation fluids and solids from oil, gas, and geothermal exploration and field development
- Demolition waste/major renovation waste
- Waste generated from emergency response actions
- Waste generated from laboratory scale research
- Medical waste

A generator may request OPPTD to exempt a hazardous waste stream with no practicable source reduction measures from the requirements of SB 14. OPPTD considers requests on a case by case basis. However, the documentation required to demonstrate that no practicable source reduction measures exist for a hazardous waste stream may be extensive.

Collect Data on Hazardous Waste

Data on hazardous waste manifested off-site, as well as hazardous wastewater effluents, may come from a variety of sources, including:

- Hazardous waste manifests
- Biennial hazardous waste generator reports
- Waste water flow records
- SARA Title III Section 313 environmental release reports
- Environmental audit reports
- Permits (RCRA Part B, National Pollution Discharge Elimination System (NPDES), etc.)
- Lab reports/characterization data
- Chemical inventory and usage records
- NPDES monitoring reports
- Internal waste tracking system records
- Production records

These sources of information are helpful in calculating the total hazardous waste generated. They also provide valuable information such as hazardous characteristics and current (off-site as well as on-site) management methods.

Another way for a large business to accumulate information or to supplement its collection is to prepare a brief questionnaire for key departments, such as production, maintenance, and service, which are known or suspected to generate waste. A review of operator logs or production records may also provide useful information in calculating quantities of hazardous waste.

2.4 Additional Considerations

- In determining the applicability of SB 14, hazardous waste streams and extremely hazardous waste streams are separated for comparison to their respective applicability thresholds.
- A generator may manage wastes by a variety of different strategies, e.g., transport wastes off-site for recycling, treatment, or disposal; treat wastes on-site; or recycle wastes on-site. The method of managing a hazardous waste at a site may affect its inclusion in determining the applicability of SB 14 to the site. For example, some hazardous waste recycling processes do not currently require a permit from DTSC, i.e., they are exempt from tiered permitting requirements. However, the material may be designated a hazardous waste and captured by SB 14. A generator should carefully read section 25143.2 of the Health and Safety Code to determine if a recyclable material is designated a hazardous waste.
- Section 25200.3(c)(8) of the Health and Safety Code states "The generator shall treat only hazardous waste which is generated on-site. For the purposes of this chapter, a residual material from the treatment of a hazardous waste generated off-site is not a waste that has been generated on-site." In other words, the residual material from the treatment of hazardous waste received from an off-site facility is not a waste that has been generated on-site by the generator. Therefore, the generator does not include the residual materials when determining if SB 14 is relevant to the site.
- When determining applicability of SB 14 at a site, a generator must include the weight of aqueous hazardous waste streams before pretreatment and discharge to a sewer.

Organize, Sort, and Display Data

Once all the hazardous waste data are collected for your site, the data concerning hazardous wastes that are routinely generated are used to produce the annual hazardous waste production estimate. You must estimate the volume or weight (pounds) of routinely-generated hazardous and extremely hazardous waste and the total quantity generated at the site.

Since the data you collect may be for all waste streams, including nonhazardous wastes, wastes not routinely generated and some waste streams that might be categorically exempted by SB 14 regulations, an intermediate step may be necessary to screen the data. A table similar to Table 1 can be useful for this purpose. This table is an aid for sorting your data and, if included in the Plan, can document your data collection effort and decision process regarding what wastes were included (or excluded) from consideration.

The table includes a "waste type" column, which receives a code for hazardous waste (H), extremely hazardous waste (E), nonhazardous waste (W), or waste exempted by regulation (X). It also includes a "frequency" column, which receives a code for waste which is routinely generated (R) or not routinely generated (N). Waste type and frequency are the two criteria used to sort the data. A column for the California Waste Code (CWC) is included to group the wastes. A list of CWCs can be found in the Appendices.

Table 1. Waste Generation Data
(Example format - not required by SB 14)

Site Name: _____ **Reporting Year:** _____

Waste Stream	Waste Type ¹	Freq. ²	CWC ³	Weight (lbs)

¹ Waste Type Codes

H = hazardous waste

E = extremely hazardous waste

W = nonhazardous waste

X = waste exempt by 22CCR67100.2(c)

² Frequency Codes

R = routinely generated

N = not routinely generated

³ CWC = California Waste Code

Chapter 3 Compliance Deadlines

3.1 Dates to Remember

SB 14 requires generators to prepare a Plan, Report, and SPR on or before September 1, 1991 and every four years thereafter, when the generation of hazardous waste or extremely hazardous waste exceeds the corresponding applicability threshold during reporting years. In addition to preparing the Plan, Report and SPR, a generator must send the completed SPR to OPPTD by September 1, 1999 and every four years thereafter. **The next compliance deadline for the preparation of the Plan, Report and SPR, and submission of the SPR to OPPTD is September 1, 1999.**

3.2 New Owner

If a generator acquires a site that has an existing set of source reduction documents, the generator has six months to amend the documents. If the generator does not amend the documents within six months, the documents, including the selected source reduction measures and numerical goal, will continue to apply to the site. The new owner is responsible for the implementation of the selected measures according to the existing implementation schedule.

A Source Reduction Success - Gold Seal Plating

Gold Seal Plating is a company of 18 to 36 employees that provides nickel, copper, silver, and gold plating of jewelry and flexible circuits. Gold Seal Plating performs rack and barrel plating and operates both manual and automatic plating lines.

Gold Seal Plating began targeting its hazardous rinsewaters for source reduction in 1980. In late 1995, Gold Seal Plating reached the goal that many metal plating facilities are trying to achieve- zero water discharge. Gold Seal Plating did not become a zero water discharge facility quickly. They achieved this status through a systematic approach that included commitment, good research and planning, some common sense, good employee relations, and trial and error.

Gold Seal Plating began its source reduction approach by first considering the low cost, common sense approaches. These approaches included:

- improved bath maintenance
- fog rinsing above heated process baths
- reuse of drag-out solutions in heated baths
- reuse of spray rinses in rinse tanks
- electrocleaner purification
- countercurrent rinsing
- electrowinning to recover precious metals from rinse tanks

By incorporating these changes, the metals loading into the rinsewater was reduced by 90% and the rinsewater flow rate was reduced from 15 gallons per minute (gpm) to 6 gpm. Gold Seal Plating wanted to further improve its rinsewater quality without requiring the use of more city water, additional wastewater treatment, or increasing its discharge to the sewer. Gold Seal Plating installed an ion exchange system to remove the contaminants from the rinsewater, thereby providing high quality deionized water for reuse in the rinse system. Costs per 1000 gallons of rinsewater treated was reduced from \$29 (on-site treatment) to \$6-8 (ion exchange). With the use of an evaporation system for the ion exchange regenerant, Gold Seal Plating was able to cap its sewer in January, 1996.

Gold Seal Plating's systematic approach to source reduction had many advantages. The reduction in metals loading and rinsewater flow allowed Gold Seal Plating to select a more cost-effective ion exchange system. Gold Seal Plating installed a 15 gpm ion exchange system that allows improvements in rinse water quality and increases in rinsewater use due to production changes. Without taking the first steps, Gold Seal Plating would have purchased a larger, more costly ion exchange system. The higher capital cost of the larger ion exchange system, in addition to the cost of waste treatment and maintenance, would have limited expansion of the system to accommodate increases in production.

For its source reduction accomplishments, Gold Seal Plating received awards from the California Water Environment Association, East Bay Municipal Utility District, Peninsula Conservation Center Foundation, Santa Clara County, and the U.S. Congress. In addition, Gold Seal Plating's recognition as an environmentally-conscious business has increased its customer base beyond California.

Chapter 4 Options for a Small Business, Multiple Sites, or a Complex Site

4.1 Definition of "Small Business"

The definition of "small business" used by SB 14 is taken from section 11342 of the California Government Code and states:

- (1) "Small business" means a business activity in agriculture, general construction, special trade construction, retail trade, wholesale trade, services, transportation and warehousing, manufacturing, generation and transmission of electric power, or a health care facility, unless excluded in paragraph (2), that is both of the following:
 - (A) Independently owned and operated.
 - (B) Not dominant in its field of operation.
- (2) "Small business" does not include the following professional and business activities:
 - (A) A financial institution including a bank, a trust, a savings and loan association, a thrift institution, a consumer finance company, a commercial finance company, an industrial finance company, a credit union, a mortgage and investment banker, a securities broker-dealer, or an investment adviser.
 - (B) An insurance company, either stock or mutual.
 - (C) A mineral, oil, or gas broker; a subdivider or developer.
 - (D) A landscape architect, an architect, or a building designer.
 - (E) An entity organized as a nonprofit institution.
 - (F) An entertainment activity or production, including a motion picture, a stage performance, a television or radio station, or a production company.
 - (G) A utility, a water company, or a power transmission company generating and transmitting more than 4.5 million kilowatt hours annually.
 - (H) A petroleum producer, a natural gas producer, a refiner, or a pipeline.
 - (I) A business activity exceeding the following annual gross receipts in the categories of:
 - (i) Agriculture, one million dollars (\$1,000,000).
 - (ii) General construction, nine million five hundred thousand dollars (\$9,500,000).
 - (iii) Special trade construction, five million dollars (\$5,000,000).
 - (iv) Retail trade, two million dollars (\$2,000,000).
 - (v) Wholesale trade, nine million five hundred thousand dollars (\$9,500,000).
 - (vi) Services, two million dollars (\$2,000,000).

-
- (vii) Transportation and warehousing, one million five hundred thousand dollars (\$1,500,000).
- (J) A manufacturing enterprise exceeding 250 employees.
- (K) A health care facility exceeding 150 beds or one million five hundred thousand dollars (\$1,500,000) in annual gross receipts.

4.2 Options For a Small Business

A generator that exceeds either applicability threshold (see Section 2.1 of this Guidance Manual) and is a small business must prepare a Plan, Report, and SPR by September 1, 1999, and send the completed SPR to OPPTD by September 1, 1999. In place of the Plan, a small business may choose to complete any one of the following set of documents:

- Hazardous Waste Source Reduction Compliance Checklist;
- industry-specific Waste Audit Study plus Sections 1, 3, 4, 5 and 6 from the Compliance Checklist; or
- industry-specific Hazardous Waste Minimization Checklist and Assessment Manual plus Sections 1, 3, 4, 5 and 6 from the Compliance Checklist.

Small businesses may find that completing the forms in the Compliance Checklist or appropriate Waste Audit Study easier than completing a Plan. OPPTD developed the Compliance Checklist for use by companies that are not addressed by the industry-specific Waste Audit Studies and Hazardous Waste Minimization Checklist and Assessment Manuals. These documents may be used in place of the Plan by small businesses that have inadequate technical and financial resources for obtaining information and assessing source reduction methods. The Compliance Checklist, Waste Audit Studies, and Checklist and Assessment Manuals are available from OPPTD. Refer to “Contacting OPPTD” at the beginning of the Guidance Manual for ways to contact OPPTD.

A small business may use its most recent biennial report, as required by section 66262.41 of the California Code of Regulations, as the Report required by SB 14.

4.3 Options For Multiple Sites

A generator that owns or operates multiple sites with similar processes, operations, and waste streams may prepare a single, multiple-site Plan, Report, and SPR addressing all of the sites. A generator that chooses this option may avoid unnecessary duplication of work. The generator must also keep a copy of the Plan, Report, and SPR at each site.

4.4 Options For a Complex Site

A generator that owns a complex site with multiple operations that are managed as independent businesses may choose to prepare a separate Plan, Report, and SPR for each operation that is independently managed. An example of a complex site is a site where hazardous wastes generated at each operation is managed by a separate

environmental coordinator or production unit. A generator that chooses this option may avoid the burden of coordinating activities between businesses that would otherwise act independently.

A Source Reduction Success - The Martin Luther King Jr./Charles R. Drew Medical Center

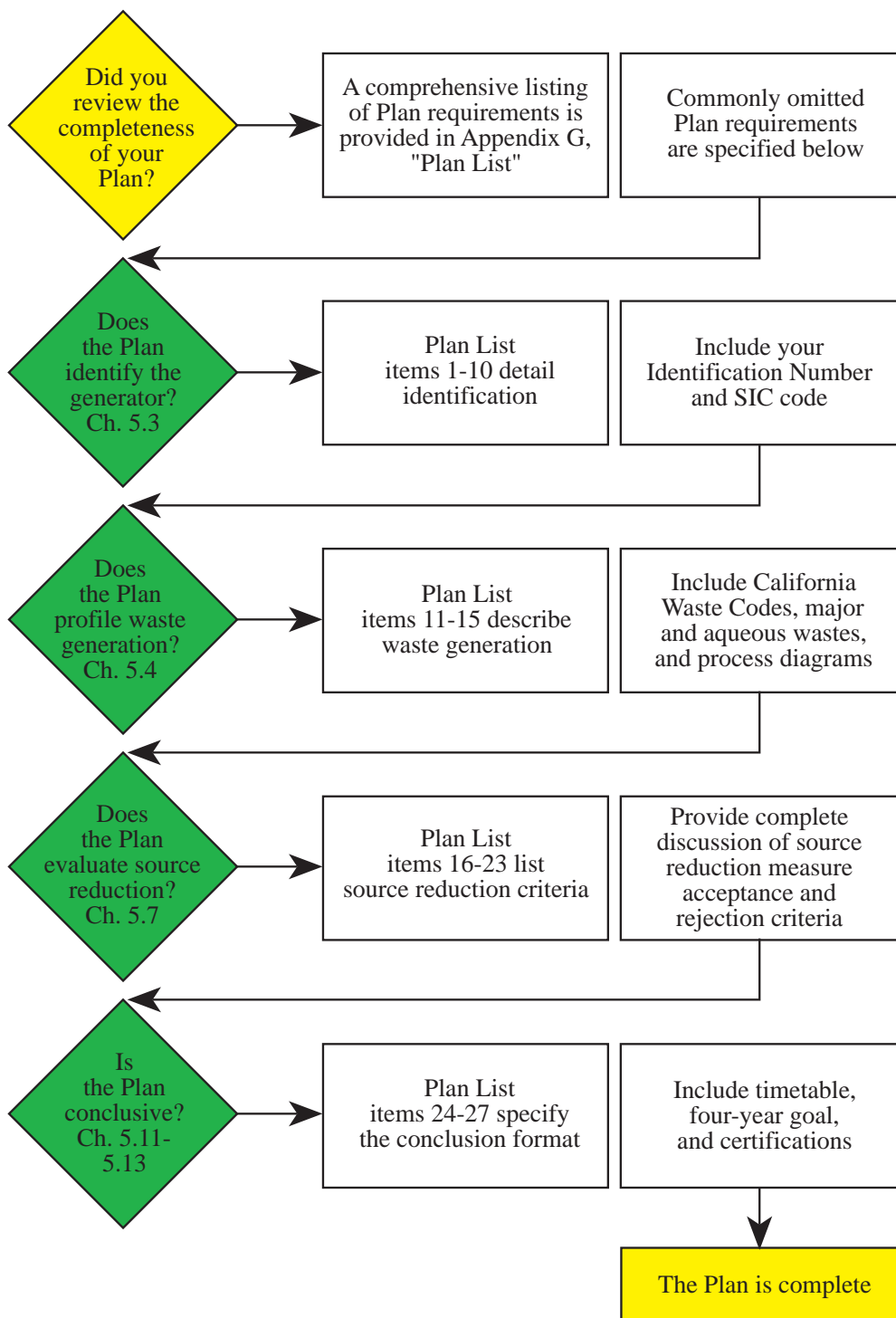
The Martin Luther King Jr./Charles R. Drew Medical Center (KDMC) is a direct result of the historic Watts Riots of 1965. Following the riots, former Governor Pat Brown appointed John A. McCone to head a commission to study the causes of the riots. The McCone Commission Report identified the absence of accessible quality health care as a major contributor to the civil disturbance.

KDMC is a short-term general acute care community teaching facility, a Level I Trauma Center, and a Level III Newborn Intensive Care Unit. The facility has 14 approved clinical residency training programs, and operates a Paramedic Base Station and emergency heliport. The following are a few of the source reduction methods implemented by the hospital.

- Maintenance workers manually washed paint guns in the paint shop with thinner. Manual washing released thinner into the surrounding work space and generated thinner waste. A Herkules Paint Gun Washer and Recycler that uses compressed air was installed in the paint shop in mid-1994. Practically all the used thinner is now captured as liquid waste. The washer effectively cleans the paint gun and reuses the thinner for additional washes. Thinner waste was reduced by 28%, or 500 pounds per year. The capital cost was \$975 and operation and maintenance costs are \$100 a year.
- Laboratory technicians manually dipped slides with blood smear into the stains. The manual process takes 12 to 15 minutes. A Wescor Aerospray Hematology Slide Stainer was installed in January 1995. The automatic slide stainer sprays the slides with the stains, minimizing the generation of alcohol waste. The machine can replace the manual staining process for most slides with the exception of bone marrow slides. The machine takes less than 10 minutes. The slide stainer costs \$6000 and has annual recurring costs of \$600. Annual savings in chemicals and waste disposal are \$930 and \$50, respectively. The use of the automatic slide stainer is estimated to save a minimum of 1 person-hour per day. Since the Hematology Laboratory operates 365 days per year, the automatic stainer saves approximately 365 person-hours per year or \$9125 per year.
- Employees used or serviced mercury sphygmomanometers daily, and a number of mercury spills resulted from breakages. Replacement of mercury sphygmomanometers in the patient care areas with TycosR Aneroid Sphygmomanometers was completed in 1994. The aneroid sphygmomanometers are accurate and do not contain mercury. The estimated hazardous waste source reduction was 75%, or 150 pounds per year.

Chapter 5 The Plan

5.1 SB 14 Plan Completeness Flowchart



5.2 Before Preparing the Plan

SB 14 specifies that a Plan must be understandable and contain sufficient information to convey an understanding of the facility's review and evaluation of potential source reduction measures. The Plan can consist of narratives, photographs, illustrations, figures and data to meet the requirements of a Plan established by SB 14. The level of detail will vary from site to site. However, the Plan should contain sufficient information to enable an outside reader to understand the overall flow of materials between the processes at the site, identify the processes generating hazardous waste, and understand the facility's review, evaluation and selection of potential source reduction measures.

Planning for Successful Source Reduction

A thorough evaluation of source reduction measures is the result of a combination of many factors, including a commitment by management, awareness among employees, and effort. The establishment and implementation of a successful source reduction program requires a proper plan and a systematic approach. There is no one right way to begin. However, successful source reduction programs possess several common elements. First, a successful facility establishes a policy statement. A high priority for a business, corporation or institution is to establish a formal written policy identifying source reduction as part of the company's philosophy, practices and goals. Ideally, the company should establish quantitative goals for reducing waste at its source. The written policy should be distributed to all employees to create a common facility-wide awareness of source reduction goals, regardless of the size of the facility.

Second, the facility's management must support the policy established in the first step by committing the resources to carry out the source reduction program. The need for management support and committed resources is especially important for large sites with complex management and budgeting structures. A clear statement of this commitment is vital.

Third, clear responsibility must be established for the source reduction effort. A person or a team should be appointed and authorized to manage, direct, and assume the responsibility for the operation and maintenance of the source reduction program.

5.3 General Site Information

The Plan must contain the following general site information:

- name of the site
- location of the site

The location should contain the street address, city, county and zip code for the site. In the case of multiple sites, identify all sites using the street address, city, county, and zip for each site location.

- telephone number
- Identification Number
- four-digit Standard Industrial Classification (SIC) code applicable to activities at the site.

SIC codes are developed by the federal government for characterizing sites

by their business activity. A list of SIC codes is in the Appendices. Use the one code that best describes the operations occurring at the site.

If a generator owns multiple sites with similar operations and chooses to prepare a multisite Plan, only one SIC code should be used to represent all sites. However, any site that contains different operations, different processes or different waste streams can not be covered by the multisite Plan. A separate Plan must be completed for each site not covered by the multisite Plan.

General Site Information

A generator collecting background information before beginning the source reduction evaluation should keep in mind which information must be included in the Plan. Any discovered or generated narratives, data or figures may be useful when preparing the Plan.

If a generator owns a complex site with multiple operations managed as independent businesses and chooses to prepare a separate Plan for each operation, an SIC code must be provided for each operation.

- brief description of the type of business or activity conducted at the site.
- length of time the company has been in business at the present site.

The length of time is meant to relate to the age of the equipment or production line. The potential for source reduction may correlate to the age of the production line.

- major products manufactured or services provided

If the generator is concerned that the products or services may not be understood by someone reading the Plan, the generator may provide a description of the end use or application of the products.

- number of employees
- a general description of the site operations, with corresponding block diagrams focusing on quantity and type of hazardous waste, raw materials, and final products produced at the site

Examples of block diagrams are shown in Figures 1 and 2. Diagrams help communicate information without requiring pages of narrative description. Note that the diagrams are not meant to be a mass balance of the use of materials, production of products and generation of waste occurring at the site.

5.4 Identify Major Waste Streams

The Plan must identify all hazardous wastes routinely generated in the reporting year that meet either of the following conditions:

1. It is a hazardous waste stream processed in a wastewater treatment unit which discharges to a publicly owned treatment works (POTW) or under a national pollutant discharge elimination system (NPDES) permit, as specified in the Federal Water Pollution Control Act, as amended (33 U.S.C. Sec. 1251 and following), and its weight before treatment exceeds five percent of the weight of the total yearly volume at the site.

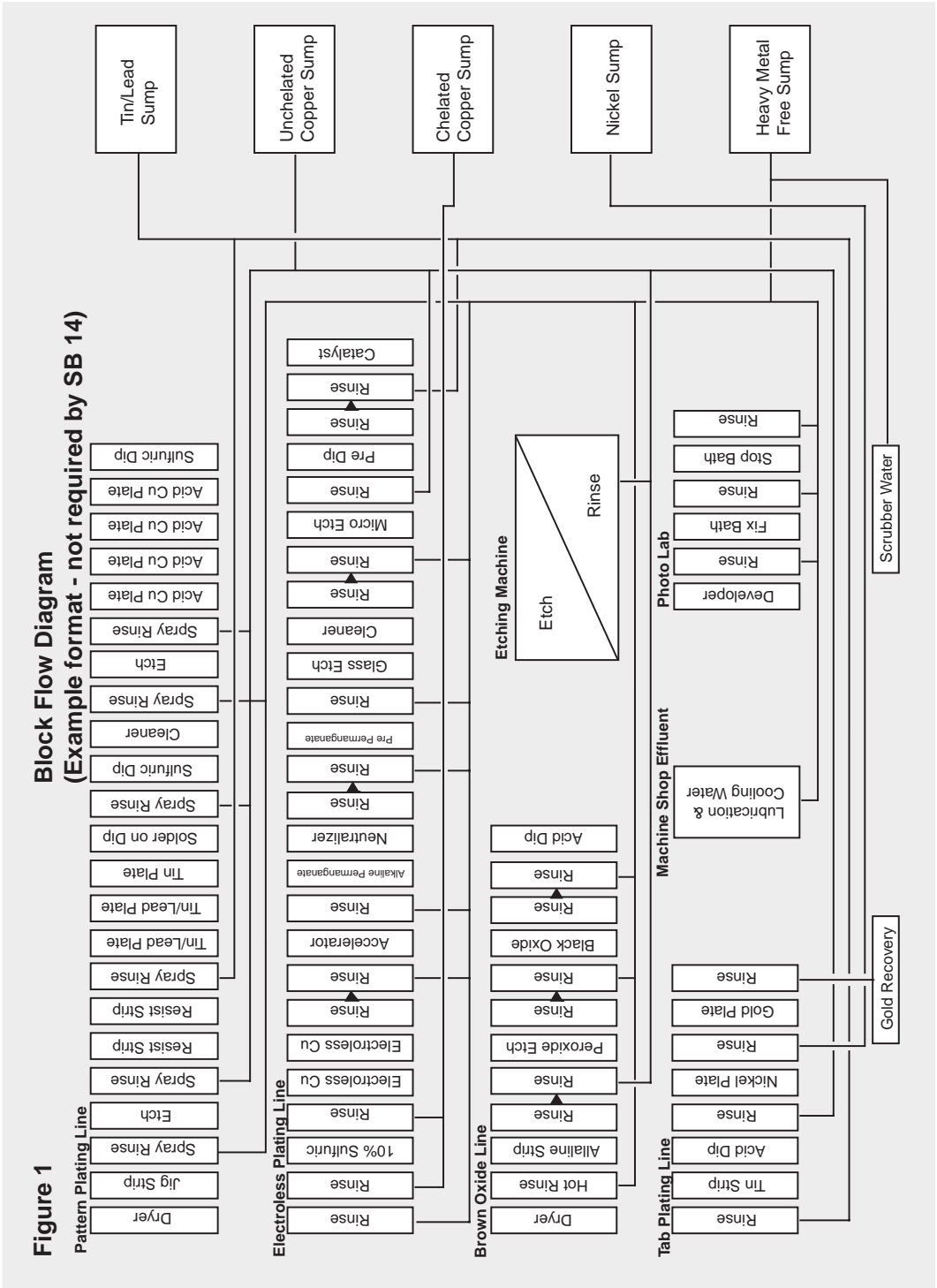
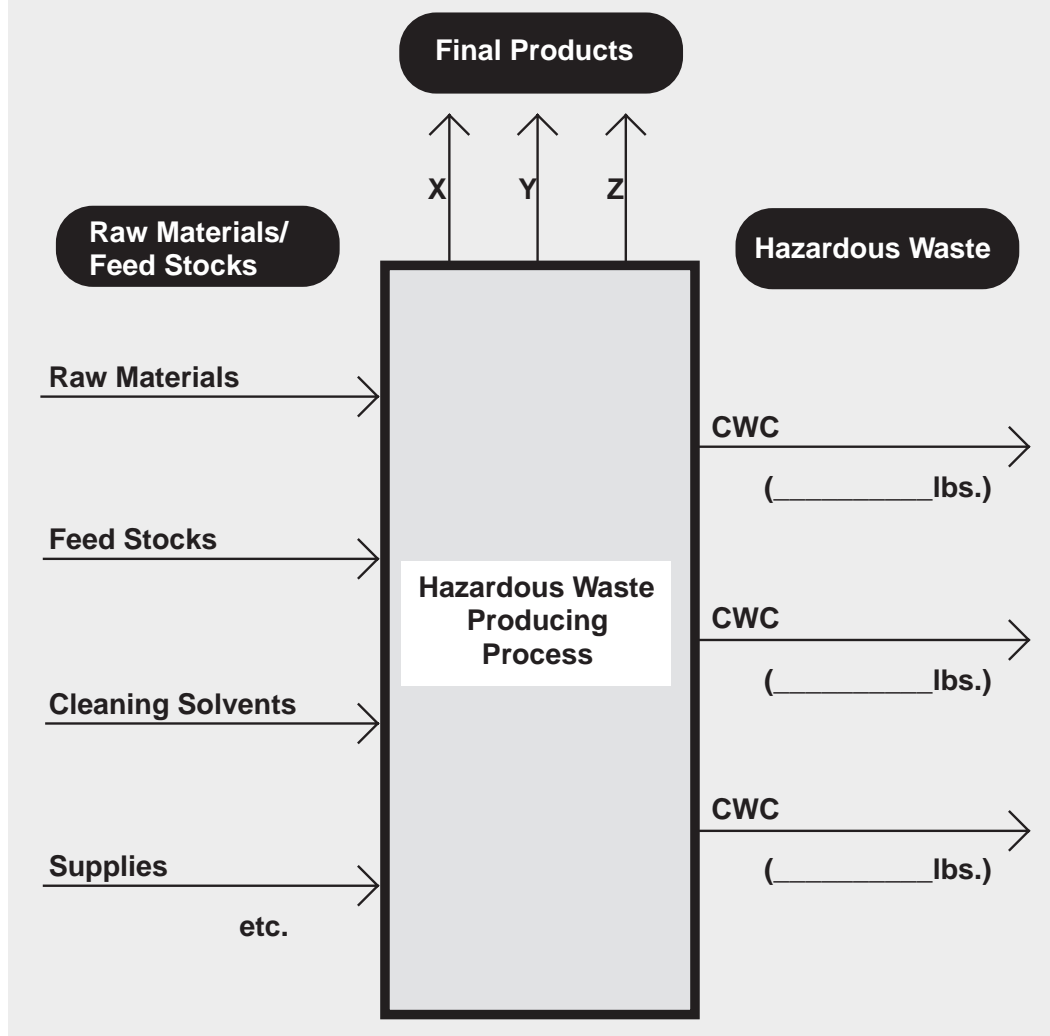


Figure 2. Block Flow Diagram
(Example format - not required by SB 14)

Site Name: _____ Reporting Year: _____



2. It is a hazardous waste stream which is not processed in a wastewater treatment unit and its weight exceeds five percent of the weight of the total yearly volume at the site, less the weight of any hazardous waste stream identified in (1).

Similar industrial processes or institutional activities generating similar wastes (with the same California Waste Codes) must be considered a single waste stream.

For purposes of discussion in this Guidance Manual, **aqueous waste** refers to a hazardous waste stream processed in a wastewater treatment unit which discharges to a POTW or under an NPDES permit. **Nonaqueous waste** refers to all hazardous wastes not covered by aqueous waste, such as manifested wastes and aqueous wastes drummed and shipped off-site. Waste streams greater than five percent by weight of the total annual volume are referred to as **major**.

Example 5-1 shows how to determine major hazardous waste streams for a facility that generates only nonaqueous waste streams.

Planning Beyond SB 14

Although SB 14 requires a generator to conduct a detailed source reduction evaluation of only major hazardous waste streams, SB 14 does not prohibit a generator from conducting an evaluation for minor or nonhazardous waste streams and including their analyses in the Plan. However, if a generator chooses to expand the scope of the Plan beyond the major hazardous waste streams, those wastes should be clearly identified so reviewers can focus on SB 14 wastes for compliance purposes.

Example 5-1: A facility generating only four nonaqueous waste streams and manifests the wastes off-site for disposal and recycling

Generated Hazardous Waste	CWC *	Weight in Pounds (lbs)	Percent by Weight	Major Hazardous Waste Stream (>5%) **
Paint	331	10,000	57%	
Solvent	214	1,500	9%	
Drums/ Containers	513	5,400	31%	
Inorganic Solids	181	500	3%	
Total		17,400	100%	
* CWC - California Waste Code. Similar wastes (with the same CWC) from similar industrial processes or institutional activities must be considered a single waste stream.				
** Major waste streams for extremely hazardous wastes are determined separately from hazardous wastes.				

The percent by weight is determined by dividing the weight of the individual waste stream by the total weight of all hazardous waste and then multiplying by 100 to

convert to a percentage. For example:

$$\% \text{ paint} = (10,000 \div 17,400) \times 100 = 57\%$$

As shown in example 5-1, there are three major nonaqueous waste streams (i.e., paint, solvent, and drums/containers) which need to be addressed for source reduction evaluation. The inorganic solids would not be required to be included in the Plan because the weight of the waste is less than five percent of the total annual weight.

5.5 Account for Aqueous Wastes

Two separate calculations are required for determining major aqueous and nonaqueous waste streams. Similar to example 5-1, the percent nonaqueous waste streams is calculated using the total weight of nonaqueous wastes. However, to determine if aqueous waste is a major waste stream, you must consider the total combined weight of aqueous and nonaqueous wastes. Example 5-2 shows how to determine major hazardous waste streams for a facility that generates a combination of aqueous and nonaqueous hazardous waste streams.

Example 5-2: Facility in example 5-1 also generates two hazardous aqueous waste streams that are treated on-site and discharged to the POTW (rinse waters following metal plating operations and spent metal plating baths)

Generated Hazardous Waste	CWC	Weight (lbs)	% by Weight (nonaqueous)	% by Weight (aqueous)	Major Hazardous Waste Streams (>5%)
Paint	331	10,000	57%		
Solvent	214	1,500	9%		
Drums/ Containers	513	5,400	31%		
Inorganic Solids	181	500	3%		
Total Nonaqueous		17,400			
Rinse Water	132	714,000*		96%	
Plating Baths	792	8,500*		1%	
Total Aqueous		722,500			
Total (aq. + nonaq.)		739,900			
* Include the weight of hazardous aqueous wastes prior to on-site treatment and not the weight of aqueous waste after treatment. Sludge generated from the treatment of hazardous aqueous waste should not be included as a separate waste stream to avoid counting the hazardous constituents in the waste twice.					

As shown in Example 5-2, the major waste stream determination for nonaqueous waste (percent by weight) is calculated by using the total weight of nonaqueous waste only. For example:

$$\% \text{ paint} = (10,000 \div 17,400) \times 100 = 57\%$$

However, the major waste stream determination for aqueous waste (percent by weight) is calculated by using the total combined weight of aqueous and nonaqueous wastes. For example:

$$\% \text{ rinse water} = (714,000 \div 739,900) \times 100 = 96\%$$

In this example, source reduction measures for four major waste streams (i.e., rinse water, paint, solvent, and drums/containers) must be evaluated. The plating baths and inorganic solids do not need to be included in the Plan.

5.6 Information on Major Waste Streams

The Plan must contain the following information for all major hazardous and extremely hazardous waste streams:

- An estimate of the weight (pounds) of the hazardous waste generated.
- The applicable California Waste Code (CWC) for each major waste stream. The list of CWCs is provided in the Appendices. The CWC and weight of each major waste stream in example 5-1 and 5-2 are recorded in the respective tables.
- The processes, operations and activities generating the wastes, with corresponding block flow diagrams. An example format is suggested in Figure 3.

5.7 Evaluate Source Reduction Measures

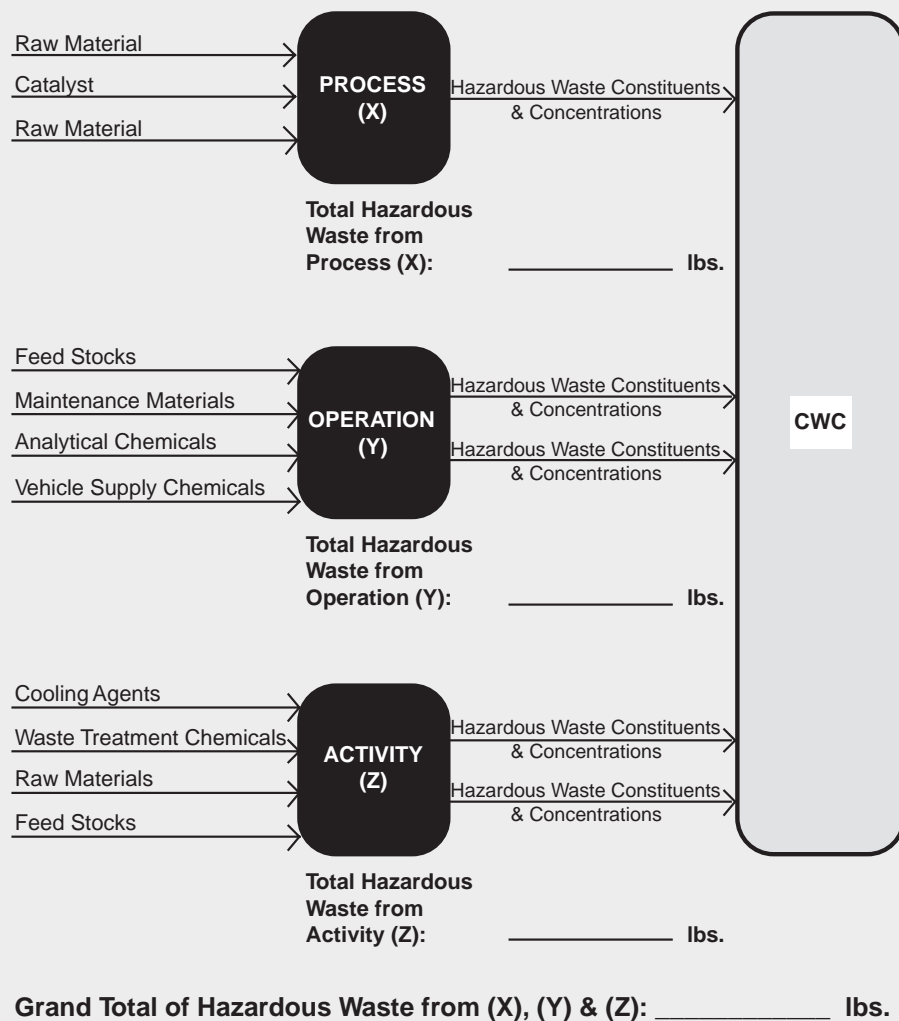
The primary objectives of this phase of the Plan are threefold:

- To develop and screen source reduction measures, considering at a minimum the five approaches mandated by SB 14. The five approaches are:
 - Input changes, such as raw material or feedstock changes to reduce, avoid or eliminate the hazardous materials that enter the production process, thereby avoiding the generation of hazardous wastes within the production process.
 - Operational improvements, such as loss prevention, waste segregation, production scheduling, maintenance operations and overall site management.
 - Production process changes, such as process changes, changes in production methods or techniques, equipment modifications, changes in process operating conditions such as temperature, pressure, etc., process or plant automation, or the return of materials or their components for reuse within existing processes.
 - Product reformulations, such as changes in design, composition or specification of final or intermediate products.
 - Administrative steps, such as inventory control and employee programs.

Administrative steps include good operating practices that apply to the human aspect of conducting day-to-day operations at the facility. These

Figure 3. Block Flow Diagram by Major Waste Streams
(Example format - not required by SB 14)

Site Name: _____ Reporting Year: _____



include employee training, incentives, bonuses and other such programs that encourage employees to strive for reducing hazardous waste. The focus should be on preventing the generation of hazardous waste.

- To conduct a detailed analysis of potentially viable source reduction measures;
- To set up an implementation schedule for the selected measures. This is the most important element of the Plan.

How Many Alternatives Must I Identify?

SB 14 stipulates that the five approaches discussed above shall be considered when developing potential source reduction measures for evaluation. However, it does not stipulate the number or type of alternatives that must be generated. Each approach may yield several or no measures, depending on the nature of the business or activity of a particular generator. Operational improvements and administrative steps are broad approaches that can be applicable to many generators, regardless of size of operation or type of industry. The other three approaches may not have such uniform applicability. While one type of industry may have more use of input changes, others may propose measures based on production process changes.

Methods to Produce Alternatives

As you try to develop alternatives, ask these questions over and over: “Why is this waste generated? Why are we doing this operation in this manner? Why are we using these hazardous ingredients?” Then ask: “Are there any substitutes we could use which would produce less waste or be less hazardous?” For example, some companies have made substantial reductions in the quantity of solvent wastes by eliminating unnecessary cleaning steps in their processes.

Large companies may benefit from establishing a committee that meets regularly to brainstorm and use group decision techniques for identifying source reduction methodologies. In order to encourage creativity and independent thinking, seek input from people involved in the waste-generating operation, from the process engineer to the line employee, and from the purchasing, product development and marketing departments.

Sources of Information on Source Reduction Measures

Generators should, on their own, look for sources of background information on source reduction methods. The very first source is in-house input from employees, operators, supervisors, engineers, plant managers, accountants, bookkeepers, finance managers and others with firsthand knowledge of the company’s operations. Other general sources of information are:

- USEPA publications, databases, and technical reference centers
- State and local environmental agencies’ publications, bibliographies, and technical assistance
- Published literature, technical magazines, trade journals, government reports, and research briefs
- Equipment vendors and chemical suppliers
- Consultants
- Trade associations

The generator’s evaluation of potentially viable source reduction measures must consider the following factors:

- Expected change in the amount of hazardous waste generated;
- Technical feasibility;
- Economic evaluation, such as capital cost, operating cost, waste management cost; return on investment (ROI), breakdown point, avoided cost, pretax

-
- payback period, or any other economic comparison method;
 - Effects on product quality;
 - Employee health and safety implications;
 - Permits, variances, compliance schedules or applicable state local and federal agencies;
 - Releases and discharges.

If a specific factor does not apply in the evaluation, the Plan must identify that factor as not applicable (N/A). Any pertinent information, such as the constituents of wastes streams or the concentrations of constituents, needed to evaluate and implement source reduction measures must be included in the Plan.

Screen Alternatives Before Evaluating

You need consider only potentially viable alternatives. If the list of candidate source reduction measures is extensive, you may screen the measures before beginning any formal evaluation. The screening procedure can range from an informal review to quantitative decision-making. This review serves to eliminate suggested measures that are marginal or inferior without a detailed and more costly technical and economic feasibility study. However, a rationale for the rejection of each alternative that you do not give further analysis is required in the Plan (Title 22, section 67100.5(o), CCR).

Optional Source Reduction Matrix

The evaluation of potentially viable source reduction measures required by the regulations can be documented in the Plan by use of a matrix for recording scores and ranks, as shown in Table 2. This method provides a means for you to record the weight assigned to the important criteria that affect waste management at your site. The matrix provides a quick visual representation of the factors affecting various source reduction measures.

This method involves three steps. First, you determine what the important criteria are in terms of the source reduction program goals and the overall policies specific to your site. While these criteria may differ widely between industries in number and type, you must consider the criteria mandated by SB 14 (see Section 5.7 of this Guidance Manual). Examples of optional criteria you may wish to include are:

- Reduction in waste hazard (toxicity, reactivity, etc.)
- Previous success within the organization
- Previous success in other industries
- Implementation period
- Ease of implementation

Second, you must evaluate each criterion listed. The rationale for each criterion must be given. Optional weighting factors can be determined for each of the criterion in relation to their importance. If you use weighting factors, a rationale for each weight you assign must be included in your Plan. If the criteria are ranked according to importance, the rationale for the importance of each criterion should also be given.

Last, rate each proposed source reduction measure for each of the criteria. Recycling and treatment alternatives can be rated at the same time. The score of each source reduction

measure for a particular criteria is multiplied by the weighting factor for that criteria. Determine a measure's overall rating by the sum of the weighted scores for all criteria.

Note that you are not required to use a matrix. It is proposed as a convenience to you and not meant to be a constraint. In some cases where a limited number of potentially viable alternatives exist, a matrix might not greatly improve the narrative presentation of your feasibility analysis on each alternative in your Plan.

Table 2 Matrix for Measure Evaluation (Example format - not required by SB 14)

Site Name: _____
 Reporting Year: _____
 CWC: _____

Approaches	Measures	Evaluation Criteria										TOTAL Sum (R x W)						
		I Change in Haz. Waste		II Technical Feasibility		III Economic Evaluation		IV Effects on Product Quality		V Employee Health & Safety			VI State, Local, Fed. Law, Compliance		VII Releases & Discharges		VIII Other	
		weight (w) = R	R x W	W = R	R x W	W = R	R x W	W = R	R x W	W = R	R x W		W = R	R x W	W = R	R x W		
Input Changes																		
Operational Improvements																		
Production Process Change																		
Product Reformulations																		
Administrative Steps																		
Other																		

5.8 Information on Selected Source Reduction Measures

The Plan must identify each source reduction measure selected for implementation as a result of the evaluation. The Plan must describe each selected measure in detail, using narratives, photographs, figures or data. The description of each selected measure must be in sufficient detail to convey an understanding to allow other generators to transfer the measure to a site with similar processes, operations or procedures. At a minimum, the seven evaluation factors must be addressed in a narrative. The Plan must also address the predicted effect of the selected measures on the system capacity and efficiency of related processes and operations, if appropriate.

If a generator considers information in the Plan a trade secret or proprietary, the pages containing that information should be labeled accordingly. See Chapter 8 for more information on labeling trade secret information.

5.9 Evaluate Multimedimum Effects

SB 14 specifies that implemented source reduction measures can not merely transfer the waste load from one environmental medium (air, land, or water) to another. The Plan must include an evaluation and, to the extent practicable, a quantification of the effects of the chosen alternative on all three environmental media.

5.10 List Rejected Measures

The Plan must include a list of source reduction measures that were rejected before undertaking the detailed evaluation. The rationale for their rejection must be stated. Also, if some waste streams were considered to not have viable source reduction alternatives, the Plan must include a brief description of the good-faith effort to identify source reduction alternatives.

5.11 Schedule Steps Toward Implementation

The Plan must include a timetable for implementation of all selected source reduction measures. The timetable should include, at a minimum, starting and finishing dates for implementation. A simple action plan with key dates or milestones would be desirable for lengthy or complex projects.

5.12 Set a Numerical Goal

The Plan must specify a numerical goal that spans the four years from the first day of the calendar year when the Plan must be prepared to the last day of the next reporting year. For example, the numerical goal in the Plan that must be prepared by September 1, 1999 covers January 1, 1999 through December 31, 2002.

The four-year numerical goal is not simply a reflection of the generator's intended source reduction under SB 14. It is an estimate of the source reduction that the site could optimally strive to achieve over the four-year period. The goal, a single numerical percentage, reflects the business' source reduction vision and commitment. The goal must reflect waste stream reductions due only to source reduction and

excludes effects due to production or economic influences.

Calculate the four-year numerical goal (as percent reduction) using the following equation:

$$\frac{\text{Total weight of hazardous and extremely hazardous waste reduced at the site if source reduction practices are optimized}}{\text{Total weight of hazardous and extremely hazardous waste generated if source reduction measures are not implemented at the site}} \times 100$$

5.13 Certify the Plan

The Plan must have a technical certification and a financial certification. The technical certification of the Plan can be completed by any one of the following people:

- an engineer who is registered in California and has demonstrated expertise in hazardous waste management;
- an environmental assessor who is registered in California and has demonstrated expertise in hazardous waste management; or
- an individual in your company who is responsible for the processes and operations of the site, regardless of any professional registrations.

The person performing the technical certification of the Plan must certify all of the following:

- The Plan identifies and addresses all of the major waste streams at the site.
- The five approaches to source reduction have been considered.
- The Plan fully explains the decision process used to determine which measures to implement, including the rationale for rejecting the measures that will not be implemented. The Plan includes an implementation schedule.
- The Plan does not merely shift hazardous waste from one environmental medium (air, water, or land) to another by increasing emissions or discharges to air, water, or land.

TECHNICAL CERTIFICATION STATEMENT FOR THE PLAN (Example format - not required by SB 14)

I certify this review and plan meets all of the following requirements:

- (1)The review and plan addresses each hazardous waste stream identified pursuant to section 67100.5(h), Title 22 of the California Code of Regulations.
- (2)The review and plan addresses the source reduction approaches specified in section 67100.5(j), Title 22 of the California Code of Regulations.
- (3)The review and plan clearly sets forth the measures to be taken with respect to each hazardous waste stream for which source reduction has been found to be technically feasible and economically practicable, with timetables for making reasonable and measurable progress, and documents the rationale for rejecting available source reduction measures.

(4)The review and plan does not merely shift hazardous waste from one environmental medium to another environmental medium by increasing emissions or discharges to air, water, or land.

name

title

signature

____/____/____

mo / day / year

The intent of the financial certification for the Plan is to ensure that the "person who is capable of committing the financial resources necessary to implement the Plan" is aware of its contents and the necessary resource commitment. The financial certification of the Plan must be completed by any one of the following people who is capable of committing financial resources necessary to implement the source reduction measures:

- the owner;
- the operator;
- the responsible corporate officer; or
- an authorized individual.

The person completing the financial certification in the Plan must sign and date the following language that is required by SB 14:

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for making false statements or representations to the Department, including the possibility of fines for criminal violations."

5.14 Update the Plan

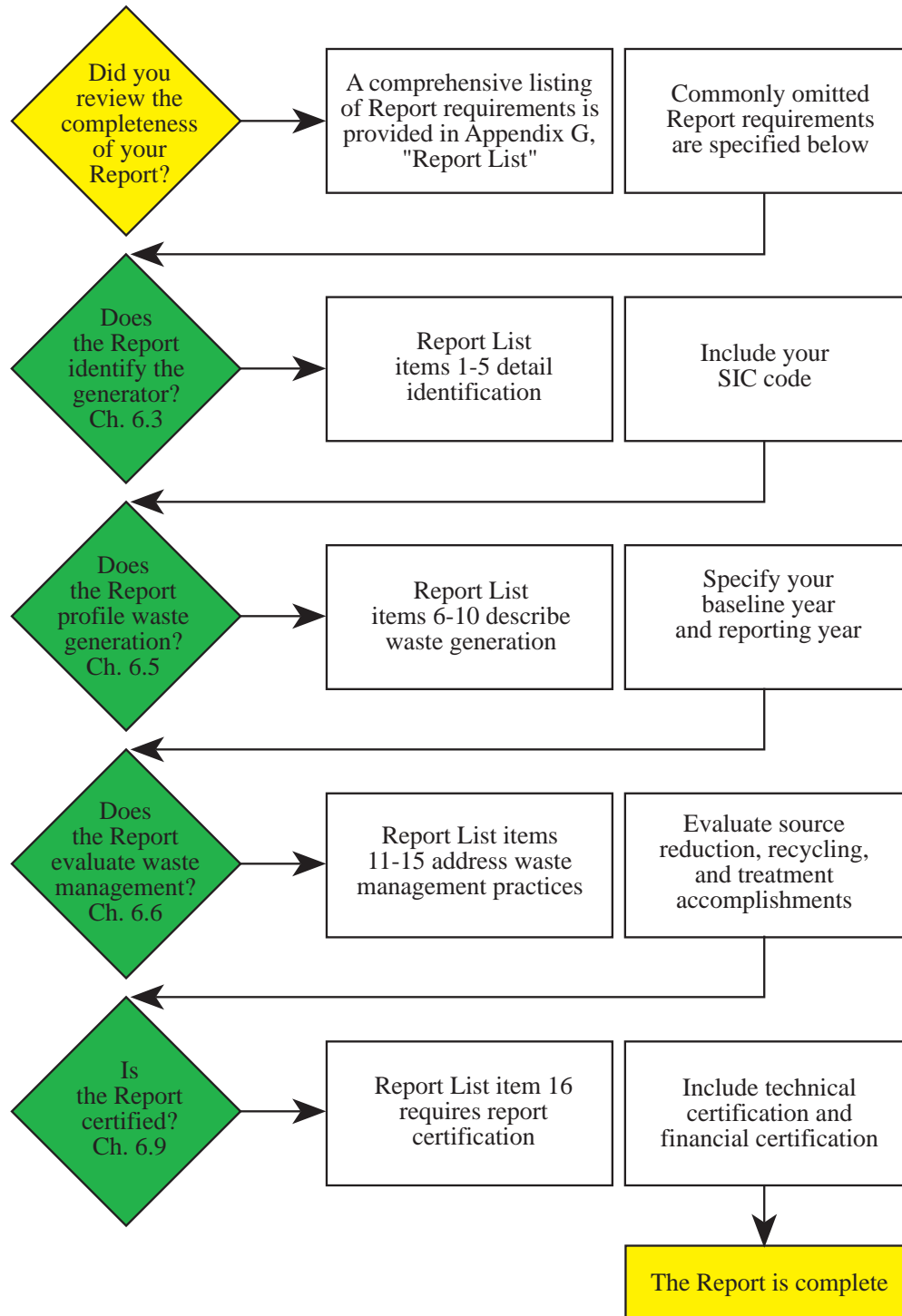
A generator may decide not to implement a selected source reduction measure only if the generator determines that the selected measure is not technically feasible or economically practicable. Also, a generator may decide not to implement a selected source reduction measure if attempts to implement the measure reveals that the measure would result in, or has resulted in, any of the following:

- An increase in the generation of hazardous waste.
- An increase in the release of hazardous chemicals to other environmental media.
- Adverse impacts on product quality.
- A significant increase in the risk of an adverse impact to human health or the environment.

The generator's decision to not implement a selected measure does not require any government approvals. However, the generator must amend the Plan within 90 days to reflect the decision to not implement a selected measure. The amendment to the Plan must include proper documentation identifying the rationale for the decision.

Chapter 6 The Report

6.1 SB 14 Report Completeness Flowchart



6.2 Before Preparing the Report

The Hazardous Waste Management Performance Report (Report) documents a generator's current efforts and effectiveness in managing hazardous waste. The Report includes discussions of the generator's approaches to managing hazardous waste including source reduction, on-site and off-site recycling, and treatment. The Report can serve as a way for the generator to share with the public all of the positive efforts to improve the management of hazardous waste at the generator's site.

The Report should contain sufficient detail to convey an understanding of the hazardous waste management approaches used at the site. The use of narratives, photographs, illustrations, figures and data is encouraged. Keep in mind that the Report will be available to the interested public.

A generators who is small business may use the most recent biennial report, as required by section 66262.41 of the California Code of Regulations, as the Report required by SB 14.

6.3 General Site Information

The Report must contain the following general facility information:

- name of the site.
- location of the site.

The location should include the street address, city, county and zip code for the site. In the case of multiple sites, identify all sites by street address, city, county and zip for each site location.

- four-digit Standard Industrial Classification (SIC) code applicable to activities at the site.

A list of SIC codes is in the Appendices. Use the one code that best describes the operations occurring at the site. The SIC code should be the same as the code used for the Plan.

If a generator owns multiple sites with similar operations and chooses to prepare a multisite Report, only one SIC code should be used to represent all sites. However, any site that contains different operations, different processes or different waste streams can not be covered by the multisite Report. A separate Report must be completed for each site not covered by the multisite Report.

If a generator owns a complex site with multiple operations managed as independent businesses and chooses to prepare a separate Report for each operation, an SIC code must be provided for each operation.

6.4 Baseline Year and Reporting Year

The Report focuses on the major hazardous waste streams identified in the Plan and compares the quantity of hazardous waste generated during the reporting year with the quantity of hazardous waste generated during the baseline year.

Reporting year refers to the calendar year immediately preceding the year in which the Report is to be prepared. For the Report due September 1, 1999, the

reporting year is 1998.

For generators that have prepared Reports since the adoption of SB 14 in 1989, the **baseline year** is the reporting year of the immediately preceding Report. The baseline year for the Report due in 1999 is calendar year 1994.

If the 1999 Report is a generator's initial Report, the baseline year is the calendar year for which substantial data is available on the generation, on-site management, or off-site management of hazardous waste. The generator may choose the current reporting year as the baseline year in the initial report. For a generator's initial Report that is due in 1999, the generator may choose the current reporting year, calendar year 1998, as the baseline year. If the current year is selected as the baseline year for the initial Report, the information required for each waste stream shall be provided for the current year only.

Chronicle Your Site's Waste Management History

As each new set of source reduction documents is prepared every four years, generators may lose their accumulated waste management history unless they provide a summary projection of their waste management approaches back to their initial baseline year. In this way, generators will provide an excellent overview of their long-term environmental performance. This can be an important step considering that the source reduction documents may be of interest to local citizens and environmental leaders. One of the original Report objectives was to serve generators as a means for capturing their earliest waste management history so as to demonstrate beneficial past practices

Each new Report must also focus on the latest waste management approaches used over the past four years. Generators should discuss this most recent activity in the greatest detail as it represents their latest progress.

6.5 Compare Quantities of Major Waste Streams

For each major waste stream, the Report must contain the following information:

- an estimate, in pounds, of the quantity of hazardous waste generated, and the quantity of hazardous waste managed, both on-site and off-site, **during the current reporting year.**
- an estimate, in pounds, of the quantity of hazardous waste generated, and the quantity of hazardous waste managed, both on-site and off-site, **during the baseline year.**

An example of a typical format is shown in Table 3.

6.6 Describe Waste Management Approaches

Hazardous waste management approaches means methods and techniques of controlling the generation and handling of hazardous waste. Approaches include source reduction, on-site and off-site recycling, on-site and off-site treatment, and disposal. For each major waste stream, the Report must contain the following information:

- a description of current hazardous waste management approaches.

The current approaches described in the 1999 Report are those approaches implemented during the current reporting year, calendar year 1998.

**Table 3. Hazardous Waste Management Performance Report
(Example format - not required by SB 14)**

Site Name: _____ **Reporting Year:** _____

Hazardous Waste Management Approaches ¹	Major Hazardous Waste Stream CWC : _ _ _		
	Weight (lbs) Generated During Baseline Yr 19 _ _	Weight (lbs) Generated During Current Reporting Yr 1998	Difference ²
1. On-site Source Reduction			
2. On-site Recycling			
3. On-site Treatment			
4. Off-site Recycling			
5. Off-site Treatment			
6. Other			

¹ "Hazardous waste management approaches" means approaches, methods, and techniques of managing the generation and handling of hazardous waste, including source reduction, recycling, and the treatment of hazardous waste.

² Difference equals lbs. generated during current reporting year minus lbs. generated during baseline year.

- the identification of all approaches implemented since the baseline year.

If the 1999 Report is the generator's initial Report and the current reporting year is selected as the baseline year, the Report will have met this requirement in the description of current hazardous waste management approaches. If the generator's initial Report was prepared prior to 1999, the 1999 Report must identify all approaches implemented since calendar year 1994.

6.7 Assess the Effect of Waste Management Approaches

For each major waste stream, the Report must contain an assessment of the effect, since the baseline year, of each implemented hazardous waste management approach on each of the following:

- the weight of hazardous waste generated.
- the properties which cause the waste to be classified as a hazardous waste.
- the on-site management of hazardous waste.
- the off-site management of hazardous waste.

The assessments should cover any changes in the management of the major

hazardous waste streams. The Report should clearly identify the approach that was implemented, and the impact of that approach on the management of the waste. For example, an approach may change the physical characteristic of the waste, which in turn affects how hazardous waste technicians handle the waste.

6.8 Describe Factors Affecting Major Waste Streams

For each major hazardous waste stream, the Report must contain a description of factors during the current reporting year that have affected hazardous waste generation, on-site hazardous waste management, and off-site hazardous waste management, since the baseline year (in most cases, 1994). Factors include, but are not limited to, changes in business activity, changes in waste classification and natural phenomena.

The current reporting year for the 1999 Report is calendar year 1998. For generators that have prepared Reports since the adoption of SB 14 in 1989, the baseline year for the Report due in 1999 is calendar year 1994.

As mentioned in Section 6.4 of this Chapter, a generator that is preparing an initial Report in 1999 may choose the current reporting year as the baseline year. If this is the case, then the baseline year and the reporting year for the initial Report due in 1999 Report is calendar year 1998.

The rate of production and amount of hazardous waste generated at a site can change dramatically over time. SB 14 does not penalize a generator for generating more waste. To ensure a fair comparison between the current reporting year and the baseline year, the Report must include a detailed description of factors affecting the generation, on-site management and off-site management of major hazardous waste streams. Factors that can influence generation and management of hazardous waste may include:

- 1) Changes in business activity (production rate)
- 2) Changes in waste classification by the government
- 3) Natural phenomena
- 4) Other factors that have affected either the quantity of hazardous waste generated or on-site and off-site hazardous waste management requirements.

6.9 Certify the Report

The Report must have a technical certification and a financial certification. The technical certification of the Report can be completed by any one of the following people:

- 1) an engineer who is registered in California and has demonstrated expertise in hazardous waste management;
- 2) an environmental assessor who is registered in California and has demonstrated expertise in hazardous waste management; or
- 3) an individual in your company who is responsible for the processes and operations of the site, regardless of any professional registrations.

The person performing the technical certification of the Report must certify that the

Report identifies the factors that affect the generation, on-site management, and off-site management of hazardous wastes and summarizes the effect of those factors on the generation, on-site management, and off-site management of hazardous wastes.

**TECHNICAL CERTIFICATION STATEMENT
FOR THE PERFORMANCE REPORT
(Example format - not required by SB 14)**

I certify this hazardous waste management report meets the following requirement, as applicable:

- (1) The report identifies factors that affect the generation and on-site and off-site management of hazardous wastes and summarizes the effect of those factors on the generation and on-site and off-site management of hazardous wastes.

name

signature

title

____/____/____
mo / day / year

The intent of the financial certification for the Report is to ensure that the "person who is capable of committing the financial resources necessary to implement the Report" is aware of its contents and the necessary resource commitment. The financial certification of the Report must be completed by any one of the following people who is capable of committing financial resources necessary to implement the source reduction measures:

- the owner;
- the operator;
- the responsible corporate officer; or
- an authorized individual.

The person completing the financial certification in the Report must sign and date the following language that is required by SB 14:

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for making false statements or representations to the Department, including the possibility of fines for criminal violations."

A Source Reduction Success - Century Laminators, Inc.

Century Laminators, Inc. is a small (about 140 employees) printed circuit board manufacturer located in Anaheim. Although Century Laminators had already implemented some source reduction opportunities, the structured, systematic approach of SB 14 provided added benefit. The source reduction plan submitted to OPPTD by Mr. Chris Hensley, facility manager, scheduled the following source reduction options for implementation:

- increase concentration of copper in etchant. This would result in an annual savings of \$9,200, and reduce waste by 10% (37 tons).
- reduce cleaning schedule. This would result in an annual savings of \$7,700, and would reduce sludge production by 2% (1.5 tons/year).
- install automatic flow sensors for rinses. This would result in an annual savings of \$8,250, and would reduce the potential for operator error that would increase sludge generation.
- install automatic fluid dispensers (floor cleaner). This would result in an annual savings of \$8,850. Operator error had resulted in excess sludge generation due to improper mixing of the floor cleaner.
- install panel sensors on conveyORIZED processing equipment. This would result in an annual savings of \$2,455.
- modify oxide racks to increase drainage efficiency (cost benefit not quantified).
- increase rack drip times. Potential reduction of dragout of 50%.

In August of 1998, OPPTD requested follow-up information from Century Laminators, Inc. Mr. Hensley, now the Vice President of Business Development, is enthusiastic about the source reduction planning program. In a letter to OPPTD, he states "The program has in fact been instrumental in changing our thinking in terms of modifying what we currently do, and in evaluating processes, equipment, and chemistries for future use. The modifications that were completed first due to their ease of implementation and low cost were not the greatest opportunities for reduction, but they did provide a smooth transition into the program and were carried out with enthusiasm and precision. These included increased drip times on our oxide line, rack modifications, and the installation of an automatic floor cleaning dispenser."

Century Laminators, Inc.'s manifest data indicate source reduction progress:

Ship Year	Total Tons
1995	525
1996	459
1997	481
1998	343 (projected)

Century Laminators' 1998 waste is generated at a rate of approximately 6.6 tons per week. If we extrapolate to the end of the year, we see a total quantity of approximately 343 tons, a 25% decrease in waste from 1996 levels. These figures give us some idea of the effects of Century Laminators' source reduction efforts.

Chapter 7 The Summary Progress Report

7.1 Completing the Summary Progress Report

In 1997, the Legislature amended the SB 14 source reduction requirements to enable California generators to more simply comply with the Act. The Legislature eliminated the requirement that facilities subject to SB 14 prepare summaries for the Plan and Report. It also eliminated the use of Form GM (from the United States Environmental Protection Agency Biennial Generator Report) as the Progress Report for SB 14. In place of the Progress Report, SB 14 now requires the preparation and submittal of the Summary Progress Report (SPR).

SB 14 generators, including small businesses, are now required to prepare and submit the SPR to DTSC by September 1, 1999.

The SPR consists of two tables and a comment page. Table 1 addresses accomplishments (by waste stream) achieved over the last four years. Table 2 addresses projections (by waste stream) covering the next four years. Each table requires quantitative data and some narrative description. If more space is needed, use a comment page to provide complete information. This comment page also requests a brief summary of your organization's historical source reduction successes and waste management practices, including reuse, recycling, treatment and disposal activities. Provide this information for the period 1994-1998 or longer, if information is available. This is an opportunity to demonstrate success in minimizing waste. Note that OPPTD will make nonconfidential SPRs available to the public upon request.

To prepare the SPR accurately, a generator will need the 1995 and 1999 source reduction documents. If a generator was required to report in 1995 and 1999, the generator must provide all the information requested in the attached two tables and comment page. If a generator was required to report only in 1995, and not in 1999, the generator is not required to prepare and submit the SPR. However, OPPTD requests that the generator complete Table 1 and the comment page, as appropriate. This will help OPPTD analyze statewide hazardous waste reduction trends. If a generator was not required to report in 1995, but required to report in 1999, the generator must complete the facility information on Table 1, Table 2 and the comment page, as appropriate.

If the SPR is requesting trade secret information, please follow the procedure discussed in Chapter 8 of this Guidance Manual.

Contact OPPTD to obtain additional copies of the SPR package that includes all forms and instructions. The package may also be found in the 1999 Hazardous Waste Source Reduction Compliance Checklist and at OPPTD's web site. See "Contacting OPPTD" at the beginning of this Guidance Manual for ways to contact OPPTD.

7.2 Send Completed SPRs to OPPTD

Upon completion, the SPR must be submitted to DTSC, using any one of the following methods:

MAIL - enclose forms in an envelope and mail to:

Office of Pollution Prevention and Technology Development
Department of Toxic Substances Control
P. O. Box 806
Sacramento, California 95812-0806
Attention: Summary Progress Report/Source Reduction Unit

DISK - request an interactive disk version of the SPR by contacting DTSC at (916) 322-3670; or download the format from OPPTD's web page, as noted below. Then mail the completed disk to DTSC.

EMAIL - obtain the format from OPPTD's web site <<http://www.dtsc.ca.gov/sppt/pptd/>>. This site also includes instructions on how to submit the completed document to DTSC via email <spr@dtsc.ca.gov>.

DTSC will undertake processing and compliance review of the SPR after September 1, 1999 and compile the information into a database. The database will be used to prepare fact sheets, news articles, and reports documenting the progress of California's generators toward reducing hazardous waste. DTSC will also use the collected information to estimate statewide hazardous waste source reduction progress. This information may be used to report to the Legislature on statewide source reduction success.

Specific instructions are provided on the back of each table. Please read them carefully before preparing the Summary Progress Report.

If you have identified extremely hazardous waste in your 1995 or 1999 source reduction documents, please reproduce the SPR tables and fill out appropriate information separately for your extremely hazardous waste streams.

7.3 Summary Progress Report - Table 1. Accomplishments

SUMMARY PROGRESS REPORT ACCOMPLISHMENTS

(1) GENERATOR/FACILITY/BUSINESS NAME:		(2) EPA ID NO:	TABLE 1	
(3) STREET ADDRESS:		(4) SIC CODE:		
(5) MAILING ADDRESS:		(6) DATE:		
(7) CONTACT NAME:		(8) CONTACT PHONE:		
(9) TYPE OF BUSINESS, OPERATION OR ACTIVITIES:				

NOTE: 1) List in column 10 all major waste streams and only those minor waste stream(s) for which source reduction (SR) measures were selected.

2) Use your 1995 SR plan to enter data in column 10-13. 3) Use your 1999 Haz. Waste Mgmt. Perf. Report to enter data in column 14-17.

(10) Major Waste Stream Description (Note: Use Separate page if necessary)	(11) State Waste Code	(12) Quantity Generated in 1994 (lbs)	(13) SR Projected in 1995 Plan (lbs/yr)	(14) SR Achieved By 1998 (lbs/yr)	(15) Month/Year SR Measure Implemented	(16) Brief Description of SR Measure Implemented (Note: Use separate page if necessary)	(17) Comments Yes or No (Give detail on separate page)
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(18) AQUEOUS WASTE

(19) NONAQUEOUS WASTE

DTSC 1262 TABLE 1 (7/00)

INSTRUCTIONS FOR TABLE 1: ACCOMPLISHMENTS

- (1) **GENERATOR/FACILITY/BUSINESS NAME:** Write the name of your site/facility as it appears on your manifest form.
- (2) **EPA IDENTIFICATION NUMBER:** Twelve-digit number as it appears on your manifest form or as it is assigned to your site.
- (3) **STREET ADDRESS:** Actual location of your site where hazardous waste is generated. Should include street number and name, city or town name, state (CA), and zip code.
- (4) **SIC CODE:** Provide four-digit code. Provide "primary" SIC code only, if your site uses multiple SIC codes.
- (5) **MAILING ADDRESS:** Write complete address if different than physical location. PO Box address may be used.
- (6) **DATE:** Month/day/year e.g., 09/01/99.
- (7) **CONTACT NAME:** First name and last name.
- (8) **CONTACT PHONE:** Enter ten-digit telephone number with area code first, of the contact person.
- (9) **TYPE OF BUSINESS, OPERATION, OR ACTIVITIES:** Brief description only.
- (10) **Major Waste Stream Description:** Record major waste (>5%) exactly as they were recorded in your 1995 Source Reduction Plan. You may include minor waste stream(s), if Source Reduction (SR) measure(s) were selected for minor waste stream(s). If you used the Compliance Checklist, provide information for the waste stream(s) for which source reduction was either selected or implemented. Use comment page or separate page(s) if needed.
- (11) **State Waste Code:** California Waste Code. Use only the three-digit CWC. **Do not use USEPA waste codes.**
- (12) **Quantity Generated in 1994 (lbs):** Enter quantity of each major hazardous waste stream from your 1995 Source Reduction Plan. Include other (minor) hazardous waste stream(s) for which SR measure(s) was/were selected in 1995.
- (13) **SR Projected in 1995 Plan (lbs/yr):** Use data from your 1995 Source Reduction Plan. Indicate expected SR amounts due to implementing selected measures. Enter "0" if no source reduction was projected for these waste streams.
- (14) **SR Achieved By 1998 (lbs/yr):** Based on your SR progress, indicate, for each measure selected in 1995, the SR that was actually achieved by December 31, 1998, on a lbs per year basis. Include SR quantities due to any measures implemented (between 1995-1999) even though they may not have been mentioned/selected in the 1995 Plan, but were successfully implemented after the Plan was prepared. Indicate "0" for each of those major waste streams where SR measures were either not implemented or for which implemented measures failed to result in waste reduction. Refer to your 1999 Hazardous Waste Management Performance Report.
- (15) **Month/Year SR Measure Implemented:** Use month/year e.g., 05/96. Refer to your 1999 Hazardous Waste Management Performance Report. Enter estimated date(s) if firm dates are not available.
- (16) **Brief Description of SR Measure Implemented:** Use your 1995 SR Plan or 1999 Hazardous Waste Management Performance Report to briefly describe each SR measure implemented. Use comment page or separate page(s) to detail for all the measures implemented for one or more waste streams.
- (17) **Comments Yes/No:** Enter "Yes" if you can provide more detailed technical information on implemented measure(s) or on data normalization. This is your opportunity to provide any pertinent information pertaining to each waste stream and/or each selected measure. Specify the particulars if you normalized your data. Address detail only if you answer "Yes". Number each "Yes" answer sequentially to coincide with the order of your description given in the "Comments" page.
- (18) **AQUEOUS WASTE:** The definition applies according to section 25244.19(b)(3)(A) of the Health and Safety Code : "It is a hazardous waste stream processed in a wastewater treatment unit which discharges to a publicly owned treatment works or under a national pollution discharge elimination system (NPDES) permit, as specified in the Federal Water Pollution Control Act, as amended (33 USC Section 1251 and following". Aqueous waste not discharged to POTW must be included in Section 19. Do not include in this section nonaqueous waste listed in Section 19. (Also see Chapter 5 of the Guidance Manual.)
- (19) **NONAQUEOUS WASTE:** The definition applies to the wastes referenced in section 25141 of the Health and Safety Code and section 67100.2 of Title 22, California Code of Regulations. Do not include aqueous waste listed in Section 18 in here. (Also see Chapter 5 of the Guidance Manual.)

Normalization of Data: If you decide to normalize your data, identify your basis of normalization by unit of production, or any other basis that you feel is most representative of your operations. Clearly describe the selected basis.

Major Waste Stream: is defined by section 25244.19(b)(3) of the Health and Safety Code as a waste stream representing over 5% of the total waste generated at the site when aggregated by CWC. Major waste streams must exceed 600 kg/yr or 0.6 kg/yr for extremely hazardous waste.

7.4 Summary Progress Report - Table 2. Projections

SUMMARY PROGRESS REPORT
PROJECTIONS

(1) GENERATOR/FACILITY/BUSINESS NAME:		(2) DATE:	TABLE 2
(3) EPA ID NO:			

NOTE: 1) List in column 4 all major waste streams and only those minor waste stream(s) for which source reduction (SR) measures are selected.
2) Use your 1999 SR Plan to enter data in column 4-10.

(4) Major Waste Stream Description (Note: Use separate page if necessary)	(5) State Waste Code	(6) Quantity Generated in 1998 (lbs)	(7) SR Projected in 1999 Plan (lbs/yr)	(8) Month/Year SR Measure Will Be Implemented	(9) Brief Description of SR Measure Selected (Note: Use separate page if necessary)	(10) Comments Yes or No (Give detail on separate page)
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(11) AQUEOUS WASTE

(12) NONAQUEOUS WASTE

DTSC 1262 TABLE 2 (7/00)

INSTRUCTIONS FOR TABLE 2: PROJECTIONS

- (1) **GENERATOR/FACILITY/BUSINESS NAME:** Write the name of your site/facility as it appears on your manifest form.
- (2) **DATE:** Month/day/year e.g., 09/01/99.
- (3) **EPA IDENTIFICATION NUMBER:** Twelve-digit number as it appears on your manifest form or as it is assigned to your site.
- (4) **Major Waste Stream Description:** Record major waste streams (>5%) exactly as they were recorded in your 1999 Source Reduction Plan. You may include minor waste stream(s), if Source Reduction (SR) measure(s) were selected for minor waste stream(s). If you used the Compliance Checklist, provide information for the waste stream(s) for which source reduction was selected. Use comment page or separate page(s) if needed.
- (5) **State Waste Code:** California Waste Code. Use only the three-digit CWC. **Do not use USEPA waste codes.**
- (6) **Quantity Generated in 1998 (lbs.):** Enter quantity of each major hazardous waste stream from your 1999 Source Reduction Plan. Include other (minor) hazardous waste stream(s) for which SR measure(s) was/were selected in 1999.
- (7) **Source Reduction Projected in 1999 Plan (lbs/yr):** Use data from your 1999 Source Reduction Plan. Indicate expected SR amounts due to implementing selected measures. Enter "0" if no source reduction was projected for major waste stream(s).
- (8) **Month/Year Source Reduction Measure Will Be Implemented:** Use month/year, e.g., 11/00.
- (9) **Brief Description of SR Measure Selected:** Use your 1999 Source Reduction Plan to briefly describe each Source Reduction measure selected. Use comment page or separate page(s) to provide detail for all the measure(s) selected for one or more waste stream(s).
- (10) **Comments Yes or No:** Enter "Yes" if you can provide more detailed technical information on the selected measure(s) or on data normalization. This is your opportunity to provide any pertinent information pertaining to each waste stream and/or each selected measure. Address detail only if your answer is "Yes". Number each "Yes" answer sequentially to coincide with the order of your description given in the "Comments" page.
- (11) **AQUEOUS WASTE:** The definition applies according to section 25244.19(b)(3)(A) of the Health and Safety Code : "It is a hazardous waste stream processed in a wastewater treatment unit which discharges to a publicly owned treatment works or under a national pollution discharge elimination system (NPDES) permit, as specified in the Federal Water Pollution Control Act, as amended (33 USC Section 1251 and following". Aqueous waste not discharged to POTW must be included in Section 12. Do not include in this section nonaqueous waste listed in Section 12. (Also see Chapter 5 of the Guidance Manual.)
- (12) **NONAQUEOUS WASTE:** The definition applies to the wastes referenced in section 25141 of the Health and Safety Code and section 67100.2 of Title 22, California Code of Regulations. Do not include aqueous waste listed in Section 11 in here. (Also see Chapter 5 of the Guidance Manual.)

Major Waste Stream: is defined by section 25244.19(b)(3) of the Health and Safety Code as a waste stream representing over 5% of the total waste generated at the site when aggregated by CWC. Major waste streams must exceed 660 kg/yr or 0.6 kg/yr for extremely hazardous waste.

SUMMARY PROGRESS REPORT COMMENTS

GENERATOR/FACILITY/BUSINESS NAME: (print or type)		DATE:
EPA ID NO:		EMAIL ADDRESS:
1994		1998
Total Quantity of Hazardous Waste Generated at Site (lbs): Aqueous _____		
Nonaqueous _____		
<p>Total quantity includes SB 14 applicable wastes only. Do not include nonroutinely generated or secondary wastes in total quantity. Exempted and nonroutinely generated wastes are listed in section 67100.2(c), Title 22, California Code of Regulations. Secondary wastes include hazardous wastes generated as a result of an on-site treatment operation.</p>		
<p>COMMENTS: Provide follow up comments from Tables 1 and 2. Also include a brief summary of your organization's source reduction successes and waste management practices (including reuse, recycling, treatment and disposal activities) for at least the previous four years.</p>		

Chapter 8 Public Access and Trade Secrets

8.1 Availability of Source Reduction Documents

With the exception of the SPR, Plans and Reports are not sent to DTSC upon completion. However, a generator must keep a copy of the Plan, Report, and SPR at the generator's site and, upon request, present the documents to any authorized representative of DTSC or CUPA conducting an inspection. The generator is subject to a fine of \$1,000 per day for failure to provide any source reduction documents upon request.

A copy of the Plan, Report, and SPR must be available locally for public review. The source reduction documents can be kept at the generator's site, a public library, or the office of a local governmental agency willing to act as a repository for the documents.

8.2 Protecting Trade Secrets

A generator may claim any information submitted to DTSC under SB 14 as confidential. When DTSC requests a generator to submit a source reduction document containing confidential information, the generator must make a claim of confidentiality by placing the words "confidential business information" on each page containing the confidential information. If the generator does not make a claim of confidentiality, DTSC can make the information available to the public without notifying the generator.

When DTSC requests a generator to submit a source reduction document containing confidential information, the generator must submit two versions of the document. One version must contain the confidential information. The generator must remove the confidential information from the second version and clearly indicate which pages have been removed. The generator is responsible for removing trade secrets from the documents before fulfilling the public's request to view the documents.

Appendix A SB 14 Law

Excerpts from the Health & Safety Code, Div. 20, Chapter 6.5, Article 11.9

25244.12. This article shall be known and may be cited as the Hazardous Waste Source Reduction and Management Review Act of 1989.

25244.13. The Legislature finds and declares as follows:

(a) Existing law requires the department and the State Water Resources Control Board to promote the reduction of generated hazardous waste. This policy, in combination with hazardous waste land disposal bans, requires the rapid development of new programs and incentives for achieving the goal of optimal minimization of the generation of hazardous wastes. Substantial improvements and additions to the state's hazardous waste reduction program are required to be made if these goals are to be achieved.

(b) Hazardous waste source reduction provides substantial benefits to the state's economy by maximizing use of materials, avoiding generation of waste materials, improving business efficiency, enhancing revenues of companies that provide products and services in the state, increasing the economic competitiveness of businesses located in the state, and protecting the state's precious and valuable natural resources.

(c) It is the intent of the Legislature to expand the state's hazardous waste source reduction activities beyond those directly associated with source reduction evaluation reviews and plans. The expanded program, which is intended to accelerate reduction in hazardous waste generation, shall include programs to promote implementation of source reduction measures using education, outreach, and other effective voluntary techniques demonstrated in California or other states.

(d) It is the intent of the Legislature for the department to maximize the use of its available resources in implementing the expanded source reduction program through cooperation with other entities, including, but not limited to, CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs. To the extent feasible, the department shall utilize cooperative programs with entities that routinely contact small business to expand its support of small business source reduction activities.

(e) It is the goal of this article to do all of the following:

(1) Reduce the generation of hazardous waste.

(2) Reduce the release into the environment of chemical contaminants which have adverse and serious health or environmental effects.

(3) Document hazardous waste management information and make that information available to state and local government.

(f) It is the intent of this article to promote the reduction of hazardous waste at its source, and wherever source reduction is not feasible or practicable, to encourage recycling. Where it is not feasible to reduce or recycle hazardous waste, the waste should be treated in an environmentally safe manner to minimize the present and future threat to health and the environment.

(g) It is the intent of the Legislature not to preclude the regulation of environmentally harmful releases to all media, including air, land, surface water, and groundwater, and to encourage and promote the reduction of these releases to air, land, surface water, and groundwater.

(h) It is the intent of the Legislature to encourage all state departments and agencies, especially the State Water Resources Control Board, the California regional water quality control boards, the State Air Resources Board, the air pollution control districts, and the air quality management districts, to promote the reduction of environmentally harmful releases to all media.

25244.14. For purposes of this article, the following definitions apply:

(a) "Advisory committee" means the California Source Reduction Advisory Committee established pursuant to Section 25244.15.1.

(b) "Appropriate local agency" means a county, city, or regional association that has adopted a hazardous waste management plan pursuant to Article 3.5 (commencing with Section 25135).

(c) "Hazardous waste management approaches" means approaches, methods, and techniques of managing the generation and handling of hazardous waste, including source reduction, recycling, and the treatment of hazardous waste.

(d) "Hazardous waste management performance report" or "report" means the report required by subdivision (b) of Section 25244.20 to document and evaluate the results of hazardous waste management practices.

(e) (1) "Source reduction" means one of the following:

(A) Any action that causes a net reduction in the generation of hazardous waste.

(B) Any action taken before the hazardous waste is generated that results in a lessening of the properties which cause it to be classified as a hazardous waste.

(2) "Source reduction" includes, but is not limited to, all of the following:

(A) "Input change," which means a change in raw materials or feedstocks used in a production process or operation so as to reduce, avoid, or eliminate the generation of hazardous waste.

(B) "Operational improvement," which means improved site management so as to reduce, avoid, or eliminate the generation of hazardous waste.

(C) "Production process change," which means a change in a process, method, or technique which is used to produce a product or a desired result, including the return of materials or their components, for reuse within the existing processes or operations, so as to reduce, avoid, or eliminate the generation of hazardous waste.

(D) "Product reformulation," which means changes in design, composition, or specifications of end products, including product substitution, so as to reduce, avoid, or eliminate the generation of hazardous waste.

(3) "Source reduction" does not include any of the following:

(A) Actions taken after a hazardous waste is generated.

(B) Actions that merely concentrate the constituents of a hazardous waste to reduce its volume or that dilute the hazardous waste to reduce its hazardous characteristics.

(C) Actions that merely shift hazardous wastes from one environmental medium to another environmental medium.

(D) Treatment.

(f) "Source reduction evaluation review and plan" or "review and plan" means a review conducted by the generator of the processes, operations, and procedures in use at a generator's site, in accordance with the format established by the department pursuant to subdivision (a) of Section 25244.16, and that does both of the following:

(1) Determines any alternatives to, or modifications of, the generator's processes, operations, and procedures that may be implemented to reduce the amount of hazardous waste generated.

(2) Includes a plan to document and implement source reduction measures for the hazardous wastes specified in paragraph (1) that are technically feasible and economically practicable for the generator, including a reasonable implementation schedule.

(g) "SIC Code" has the same meaning as defined in Section 25501.

(h) "Hazardous waste," "person," "recycle," and "treatment" have the same meaning as defined in Article 2 (commencing with Section 25110).

25244.15. (a) The department shall establish a program for hazardous waste source reduction pursuant to this article.

(b) The department shall coordinate the activities of all state agencies with responsibilities and duties relating to hazardous waste and shall promote coordinated efforts to encourage the reduction of hazardous waste. Coordination between the program and other relevant state agencies and programs shall, to the fullest extent possible, include joint planning processes and joint research and studies.

(c) The department shall adopt regulations to carry out this article.

(d) (1) Except as provided in paragraph (3), this article applies only to generators who, by site, routinely generate, through ongoing processes and operations, more than 12,000 kilograms of hazardous waste in a calendar year, or more than 12 kilograms of extremely hazardous waste in a calendar year.

(2) The department shall adopt regulations to establish procedures for exempting generators from the requirements of this article where the department determines that no source reduction opportunities exist for the generator.

(3) Notwithstanding paragraph (1), this article does not apply to any generator whose hazardous waste generating activity consists solely of receiving offsite hazardous wastes and generating residuals from the processing of those hazardous wastes.

(e) It is the purpose of this article to reduce the generation of hazardous waste in California by 5 percent per year from the year 1993 to the year 2000. On or before January 1, 2000, the department shall recommend to the Legislature the adoption of a new annual waste reduction goal.

25244.15.1. (a) The California Source Reduction Advisory Committee is hereby created and consists of the following members:

(1) The Executive Director of the State Air Resources Board, as an ex officio member.

(2) The Executive Director of the State Water Resources Control Board, as an ex officio member.

(3) The Director of Toxic Substances Control, as an ex officio member.

(4) The Executive Director of the Integrated Waste Management Board, as an ex officio member.

(5) The Chairperson of the California Environmental Policy Council established pursuant to Section 71017 of the Public Resources Code, as an ex officio member.

(6) Ten public members with experience in source reduction as appointed by the department. These public members shall include all of the following:

(A) Two representatives of local governments from different regions of the state.

(B) One representative of a publicly owned treatment works.

(C) Two representatives of industry.

(D) One representative of small business.

(E) One representative of organized labor.

(F) Two representatives of statewide environmental advocacy organizations.

(G) One representative of a statewide public health advocacy organization.

(7) The department may appoint up to two additional public members with experience in source reduction and detailed knowledge of one of the priority categories of generators selected in accordance with Section 25244.17.1.

(b) The advisory committee shall select one member to serve as chairperson.

(c) The members of the advisory committee shall serve without compensation, but each member, other than officials of the state, shall be reimbursed for all reasonable expenses incurred in the performance of his or her duties, as authorized by the department.

(d) The advisory committee shall meet at least semiannually to provide a public forum for

discussion and deliberation on matters pertaining to the implementation of this chapter.

(e) The advisory committee's responsibilities shall include, but not be limited to, the following:

(1) Reviewing and providing consultation and guidance in the preparation of the work plan required by Section 25244.22.

(2) Evaluating the performance and progress of the department's source reduction program.

(3) Making recommendations to the department concerning program activities and funding priorities, and legislative changes, if needed.

(f) The advisory committee established by this section shall be in existence until April 15, 2002, by which date the department shall, in consultation with the advisory committee, evaluate the role and activities of the advisory committee and determine if the committee is beneficial to the implementation of this article. On and after April 15, 2002, the advisory committee shall continue to exist and operate to the extent that the department, in consultation with the advisory committee, determines the advisory committee continues to be beneficial to the operation of the department's source reduction programs.

25244.16. The department shall do both of the following:

(a) Adopt a format to be used by generators for completing the review and plan required by Section 25244.19, and the report required by Section 25244.20. The format shall include at least all of the factors the generator is required to include in the review and plan and the report. The department may include any other factor determined by the department to be necessary to carry out this article. The adoption of a format pursuant to this subdivision is not subject to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.

(b) Establish a data and information system to be used by the department for developing the categories of generators specified in Section 25244.18, and for processing and evaluating the source reduction and other hazardous waste management information submitted by generators pursuant to Section 25244.18. In establishing the data and information system, the department shall do all of the following:

(1) Establish methods and procedures for appropriately processing or managing hazardous waste source reduction and management information.

(2) Use the data management expertise, resources, and forms of already established environmental protection programs, to the extent practicable.

(3) Establish computerized data retrieval and data processing systems, including safeguards to protect trade secrets designated pursuant to Section 25244.23.

(4) Identify additional data and information needs of the program.

25244.17. The department shall establish a technical and research assistance program to assist generators in identifying and applying methods of source reduction and other hazardous waste management approaches. The program shall emphasize assistance to smaller businesses that have inadequate technical and financial resources for obtaining information, assessing source reduction methods, and developing and applying source reduction techniques. The program shall include at least all of the following elements, which shall be carried out by the department:

(a) The department shall encourage programs by private or public consultants, including onsite consultation at sites or locations where hazardous waste is generated, to aid those generators requiring assistance in developing and implementing the review and plan, the plan summary, the report, and the report summary required by this article.

(b) The department shall conduct review and plan assistance programs, seminars, workshops, training programs, and other similar activities to assist generators to evaluate source reduction alternatives and to identify opportunities for source reduction.

(c) The department shall establish a program to assemble, catalogue, and disseminate information

about hazardous waste source reduction methods, available consultant services, and regulatory requirements.

(d) The department shall identify the range of generic and specific technical solutions that can be applied by particular types of hazardous waste generators to reduce hazardous waste generation.

25244.17.1. The department shall establish a technical assistance and outreach program to promote implementation of model source reduction measures in priority industry categories.

(a) Every two years, in the work plan required by Section 25244.22, the department shall, in consultation with the advisory committee, select at least two priority categories of generators by SIC Code. At least one selected category of generators shall be taken from the list of categories previously selected by the department under Section 25244.18. At least one selected category of generators shall be a category that consists primarily of small businesses.

(b) For each selected priority industry category, the department shall implement a cooperative source reduction technical assistance and outreach program to include the following elements:

(1) The department shall use available resources, including reports prepared pursuant to paragraph (4) of subdivision (a) of Section 25244.18 and information on source reduction methods from federal, state, and local governments and industry associations and industry members, to identify a set of model source reduction measures for each industry category.

(2) The department shall determine, with the assistance of the advisory committee, the most effective technical assistance and outreach methods to promote implementation of the model source reduction measures identified in paragraph (1).

(3) The department shall develop a plan and schedule to implement the technical assistance and outreach measures before the next biennial work plan. The measures may include, but are not limited to, all of the following:

(A) Holding, presenting at, or cosponsoring workshops, conferences, technology fairs, and other promotional events.

(B) Developing and distributing educational materials, such as short descriptions of successful source reduction projects.

(C) Developing checklists, training manuals, technical resource manuals and using those resources to train CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs.

(D) Preparing and distributing resource lists, such as lists of vendors, consultants, or providers of financial assistance for source reduction projects.

(E) Serving as an information clearinghouse to support telephone and onsite consultations with businesses and local governments.

(4) For industry categories that include primarily large or technically complex businesses, the source reduction technical assistance and outreach program shall emphasize activities that involve direct communication between department staff and industry members. For these industry categories, the department shall communicate with representatives of 80 percent of the state's companies in the category. For categories that consist primarily of small businesses, the cooperative source reduction program shall emphasize providing industry-specific training and resources to CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs for use in their inspections and other direct communications with businesses.

(c) While conducting activities under this section, the department shall coordinate its activities with appropriate industry and professional associations.

(d) The department shall coordinate activities under this section with grants made under Sections 25244.5 and 25244.11.5.

25244.17.2. The department shall expand the department's source reduction program to provide source reduction training and resources to CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs so that they can provide technical assistance to generators in identifying and applying methods of source reduction.

(a) The program expanded pursuant to this section shall emphasize activities necessary to implement Sections 25244.17 and 25244.17.1.

(b) The department shall determine, in consultation with the advisory committee, the most effective methods to promote implementation of source reduction education programs by CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs. Program elements may include, but are not limited to, all of the following:

(1) Sponsoring workshops, conferences, technology fairs, and other training events.

(2) Sponsoring regional training groups, such as the regional hazardous waste reduction committees.

(3) Developing and distributing educational materials, such as short descriptions of successful source reduction projects and materials explaining how source reduction has been used by businesses to achieve compliance with environmental laws enforced by local governments.

(4) Developing site review checklists, training manuals, and technical resource manuals and using those resources to train CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs.

(5) Preparing and distributing resource lists such as lists of vendors, consultants, or providers of financial assistance for source reduction projects.

(6) Serving as an information clearinghouse to support telephone and onsite consultants with local governments.

(c) The department shall coordinate activities under this section with grants made under Section 25244.11.5.

(d) Each fiscal year, the department shall provide training and information resources to at least 90 percent of CUPAs.

25244.18. (a) On or before September 15, 1991, and every two years thereafter, the department shall select at least two categories of generators by SIC Code with potential for source reduction, and, for each category, shall do all of the following:

(1) Request that selected generators in the category provide the department, on a timely basis, with a copy of the generator's completed review and plan and with a copy of the generator's completed report.

(2) Examine the review and plan and the report of selected generators in the category.

(3) Ensure that the selected generators in that category comply with Sections 25244.19 and 25244.20.

(4) Identify successful source reduction and other hazardous waste management approaches employed by generators in the category and disseminate information concerning those approaches to generators within the category.

(b) In carrying out subdivision (a), the department shall not disseminate information determined to be a trade secret pursuant to Section 25244.23.

(c) The department or the unified program agency may request from any generator, and the generator shall provide within 30 days from the date of the request, a copy of the generator's review and plan or report. The department or the unified program agency may evaluate any of those documents submitted to the department or the unified program agency to determine whether it satisfies the requirements of this article.

(d) (1) If the department or the unified program agency determines that a generator has not completed the review and plan in the manner required by Section 25244.19, or the report in the manner required by Section 25244.20, the department or the unified program agency shall provide the generator with a notice of noncompliance, specifying the deficiencies in the review and plan or report identified by the department. If the department or the unified program agency finds that the review and plan does not comply with Section 25244.19, the department or the unified program agency shall consider the review and plan to be incomplete. A generator shall file a revised review and plan or report correcting the deficiencies identified by the department or the unified program agency within 60 days from the date of the receipt of the notice. The department or the unified program agency may grant, in response to a written request from the generator, an extension of the 60-day deadline, for cause, except that the department or the unified program agency shall not grant that extension for more than an additional 60 days.

(2) If a generator fails to submit a revised review and plan or report complying with the requirements of this article within the required period, or if the department or unified program agency determines that a generator has failed to implement the measures included in the generator's review and plan for reducing the generator's hazardous waste, in accordance with Section 25244.19, the department or the unified program agency may impose civil penalties pursuant to Section 25187, in an amount not to exceed one thousand dollars (\$1,000) for each day the violation of this article continues, notwithstanding Section 25189.2, seek an order directing compliance pursuant to Section 25181, or enter into a consent agreement or a compliance schedule with the generator.

(e) If a generator fails to implement a measure specified in the review and plan pursuant to paragraph (5) of subdivision (b) of Section 25244.19, the generator shall not be deemed to be in violation of Section 25244.19 for not implementing the selected measure if the generator does both of the following:

(1) The generator finds that, upon further analysis or as a result of unexpected consequences, the selected measure is not technically feasible or economically practicable, or if the selected approach has resulted in any of the following:

(A) An increase in the generation of hazardous waste.

(B) An increase in the release of hazardous chemical contaminants to other media.

(C) Adverse impacts on product quality.

(D) A significant increase in the risk of an adverse impact to human health or the environment.

(2) The generator revises the review and plan to comply with the requirements of Section 25244.19.

(f) When taking enforcement action pursuant to this article, the department or the unified program agency shall not judge the appropriateness of any decisions or proposed measures contained in a review and plan or report, but shall only determine whether the review and plan or report is complete, prepared, and implemented in accordance with this article.

(g) In addition to the unified program agency, an appropriate local agency that has jurisdiction over a generator's site may request from the generator, and the generator shall provide within 30 days from the date of that request, a copy of the generator's current review and plan and report.

25244.19. (a) On or before September 1, 1991, and every four years thereafter, each generator shall conduct a source reduction evaluation review and plan pursuant to subdivision (b).

(b) Except as provided in subdivision (c), the source reduction evaluation review and plan required by subdivision (a) shall be conducted and completed for each site pursuant to the format adopted pursuant to subdivision (a) of Section 25244.16 and shall include, at a minimum, all of the following:

(1) The name and location of the site.

(2) The SIC Code of the site.

(3) Identification of all routinely generated hazardous waste streams that result from ongoing

processes or operations that have a yearly volume exceeding 5 percent of the total yearly volume of hazardous waste generated at the site, or, for extremely hazardous waste, 5 percent of the total yearly volume generated at the site. For purposes of this paragraph, a hazardous waste exceeds 5 percent of the total yearly volume, and is subject to this article, if it is routinely generated on an ongoing basis and meets any of the following criteria:

(A) It is a hazardous waste stream processed in a wastewater treatment unit that discharges to a publicly owned treatment works or under a national pollutant discharge elimination system (NPDES) permit, as specified in the Federal Water Pollution Control Act, as amended (33 U.S.C. Sec. 1251 and following), and its weight before treatment exceeds 5 percent of the weight of the total yearly volume at the site.

(B) It is a hazardous waste stream that is not processed in a wastewater treatment unit and its weight exceeds 5 percent of the weight of the total yearly volume at the site, less the weight of any hazardous waste stream identified in subparagraph (A).

(C) It is a hazardous waste stream that annually weighs 600 kilograms or more and its weight exceeds 5 percent of the weight of the total yearly volume at the site, less the weight of any hazardous waste stream identified in subparagraph (A).

(D) It is an extremely hazardous waste stream that annually weighs 0.6 kilograms or more and its weight exceeds 5 percent of the weight of the total yearly volume at the site, less the weight of any hazardous waste stream identified in subparagraph (A).

(4) For each hazardous waste stream identified in paragraph (3), the review and plan shall include all of the following information:

(A) An estimate of the quantity of hazardous waste generated.

(B) An evaluation of source reduction approaches available to the generator that are potentially viable. The evaluation shall consider at least all of the following source reduction approaches:

(i) Input change.

(ii) Operational improvement.

(iii) Production process change.

(iv) Product reformulation.

(5) A specification of, and a rationale for, the technically feasible and economically practicable source reduction measures that will be taken by the generator with respect to each hazardous waste stream identified in paragraph (3). The review and plan shall fully document any statement explaining the generator's rationale for rejecting any available source reduction approach identified in paragraph (4).

(6) An evaluation, and, to the extent practicable, a quantification, of the effects of the chosen source reduction method on emissions and discharges to air, water, or land.

(7) A timetable for making reasonable and measurable progress towards implementation of the selected source reduction measures specified in paragraph (5).

(8) Certification pursuant to subdivision (d).

(9) Any generator subject to this article shall include in its source reduction evaluation review and plan four-year numerical goals for reducing the generation of hazardous waste streams through the approaches provided for in subparagraph (B) of paragraph (4), based upon its best estimate of what is achievable in that four-year period, as follows:

(A) For those generators and waste streams subject to this program prior to January 1, 1993, the four-year numerical goals shall be included in the plan which is required to be prepared by September 1, 1995, and every four years thereafter, pursuant to subdivision (a).

(B) Any generator who is subject to this program pursuant to paragraph (3) of subdivision (d) of Section 25244.15, and was not subject to this program before January 1, 1993, shall prepare its source reduction evaluation review and plan, or compliance check list, as provided in paragraph (3) of subdivision (d) of Section 25244.15, on September 1, 1993, and every four years thereafter.

(10) A summary progress report that briefly summarizes and, to the extent practicable, quantifies, in a manner that is understandable to the general public, the results of implementing the source reduction methods identified in the generator's review and plan for each waste stream addressed by the previous plan over the previous four years. The report shall also include an estimate of the amount of reduction that the generator anticipates will be achieved by the implementation of source reduction methods during the period between the preparation of the review and plan and the preparation of the generator's next review and plan. Notwithstanding any other provision of this section, the summary progress report required to be prepared pursuant to this paragraph shall be submitted to the department on or before September 1, 1999, and every four years thereafter.

(c) If a generator owns or operates multiple sites with similar processes, operations, and waste streams, the generator may prepare a single multisite review and plan addressing all of these sites.

(d) Every review and plan conducted pursuant to this section shall be submitted by the generator for review and certification by an engineer who is registered as a professional engineer pursuant to Section 6762 of the Business and Professions Code and who has demonstrated expertise in hazardous waste management, by an individual who is responsible for the processes and operations of the site, or by an environmental assessor who is registered pursuant to Section 25570.3 and who has demonstrated expertise in hazardous waste management. The engineer, individual, or environmental assessor shall certify the review and plan only if the review and plan meet all of the following requirements:

(1) The review and plan addresses each hazardous waste stream identified pursuant to paragraph (3) of subdivision (b).

(2) The review and plan addresses the source reduction approaches specified in subparagraph (B) of paragraph (4) of subdivision (b).

(3) The review and plan clearly sets forth the measures to be taken with respect to each hazardous waste stream for which source reduction has been found to be technically feasible and economically practicable, with timetables for making reasonable and measurable progress, and properly documents the rationale for rejecting available source reduction measures.

(4) The review and plan does not merely shift hazardous waste from one environmental medium to another environmental medium by increasing emissions or discharges to air, water, or land.

(e) At the time a review and plan is submitted to the department or the unified program agency, the generator shall certify that the generator has implemented, is implementing, or will be implementing, the source reduction measures identified in the review and plan in accordance with the implementation schedule contained in the review and plan. A generator may determine not to implement a measure selected in paragraph (5) of subdivision (b) only if the generator determines, upon conducting further analysis or due to unexpected circumstances, that the selected measure is not technically feasible or economically practicable, or if attempts to implement that measure reveal that the measure would result in, or has resulted in, any of the following:

(1) An increase in the generation of hazardous waste.

(2) An increase in the release of hazardous chemicals to other environmental media.

(3) Adverse impacts on product quality.

(4) A significant increase in the risk of an adverse impact to human health or the environment.

(f) If the generator elects not to implement the review and plan, including, but not limited to, a selected measure pursuant to subdivision (e), the generator shall amend its review and plan to reflect that election and include in the review and plan proper documentation identifying the rationale for that election.

25244.20. (a) On or before September 1, 1991, and every four years thereafter, each generator shall prepare a hazardous waste management performance report documenting hazardous waste management approaches implemented by the generator.

(b) Except as provided in subdivision (d), the hazardous waste management performance report required by subdivision (a) shall be prepared for each site in accordance with the format adopted pursuant to subdivision (a) of Section 25244.16 and shall include all of the following:

(1) The name and location of the site.

(2) The SIC Code for the site.

(3) All of the following information for each waste stream identified pursuant to paragraph (3) of subdivision (b) of Section 25244.19:

(A) An estimate of the quantity of hazardous waste generated and the quantity of hazardous waste managed, both onsite and offsite, during the current reporting year and the baseline year, as specified in subdivision (c).

(B) An abstract for each source reduction, recycling, or treatment technology implemented from the baseline year through the current reporting year, if the reporting year is different from the baseline year.

(C) A description of factors during the current reporting year that have affected hazardous waste generation and onsite and offsite hazardous waste management since the baseline year, including, but not limited to, any of the following:

(i) Changes in business activity.

(ii) Changes in waste classification.

(iii) Natural phenomena.

(iv) Other factors that have affected either the quantity of hazardous waste generated or onsite and offsite hazardous waste management requirements.

(4) The certification of the report pursuant to subdivision (e).

(c) For purposes of subdivision (b), the following definitions apply:

(1) The current reporting year is the calendar year immediately preceding the year in which the report is to be prepared.

(2) The baseline year is either of the following, whichever is applicable:

(A) For the initial report, the baseline year is the calendar year selected by the generator for which substantial hazardous waste generation, or onsite or offsite management data is available, prior to 1991, except the generator may select 1990 as the baseline year. If the generator selects 1990 as the baseline year for the initial report, the information required pursuant to paragraph (3) of subdivision (b) for the initial report shall be provided for the 1990 calendar year only.

(B) For all subsequent reports, the baseline year is the current reporting year of the immediately preceding report.

(d) If a generator owns or operates multiple sites with similar processes, operations, and waste streams, the generator may prepare a single multisite report addressing all of these sites.

(e) Every report completed pursuant to this section shall be submitted by the generator for review and certification by an engineer who is registered as a professional engineer pursuant to Section 6762 of the Business and Professions Code and who has demonstrated expertise in hazardous waste management, by an individual who is responsible for the processes and operations of the site, or by an environmental assessor who is registered pursuant to Section 25570.3 and who has demonstrated expertise in hazardous waste management. The engineer, individual, or environmental assessor shall certify the report only if the report identifies factors that affect the generation and onsite and offsite management of hazardous wastes and summarizes the effect of those factors on the generation and onsite and offsite management of hazardous wastes.

25244.21. (a) Every generator shall retain the original of the current review and plan and report, shall maintain a copy of the current review and plan and report at each site, or, for a multisite review and plan or report, at a central location, and upon request, shall make it available to any authorized

representative of the department or the unified program agency conducting an inspection pursuant to Section 25185. If a generator fails, within five days, to make available to the inspector the review and plan or report, the department, the unified program agency, or any authorized representative of the department, or of the unified program agency, conducting an inspection pursuant to Section 25185, shall, if appropriate, impose a civil penalty pursuant to Section 25187, in an amount not to exceed one thousand dollars (\$1,000) for each day the violation of this article continues, notwithstanding Section 25189.2.

(b) If a generator fails to respond to a request for a copy of its review and plan or report made by the department or a unified program agency pursuant to subdivision (c) of Section 25244.18, or by a local agency pursuant to subdivision (g) of Section 25244.18, within 30 days from the date of the request, the department or unified program agency shall, if appropriate, assess a civil penalty pursuant to Section 25187, in an amount not to exceed one thousand dollars (\$1,000) for each day the violation of this article continues, notwithstanding Section 25189.2.

(c) (1) Any person may request the department to certify that a generator is in compliance with this article by having the department certify that the generator has properly completed the review and plan and report required pursuant to Sections 25244.19 and 25244.20. The department shall respond within 60 days to a request for certification. Upon receiving a request for certification, the department shall request from the generator, who is the subject of the request, a copy of the generator's review and plan and report, pursuant to subdivision (c) of Section 25244.19, if the department does not have these documents. The department shall forward a copy of the review and plan and report to the person requesting certification, within 10 days from the date that the department receives the request for certification or receives the review and plan and report, whichever is later. The department shall protect trade secrets in accordance with Section 25244.23 in a review and plan or report, requested to be released pursuant to this subdivision.

(2) This subdivision does not prohibit any person from directly requesting from a generator a copy of the review and plan or report. Solely for the purposes of responding to a request pursuant to this subdivision, the department shall deem the review and plan or report to be a public record subject to Section 25152.5, and shall act in compliance with that section.

25244.22. Commencing May 1, 2000, and on or before January 15 of every other year thereafter, the department shall prepare, and make available for public review within five days thereafter, a draft work plan for the department's operations and activities in carrying out this article. The department shall prepare the work plan in consultation with the advisory committee and with other interested parties, including local government, industry, labor, health, and environmental organizations. After holding a public meeting of the advisory committee to discuss the draft work plan, the department shall finalize the work plan on or before June 15, 2000, and on or before April 1 of every other year thereafter. The department may include this work plan within the report required pursuant to Section 25171. This work plan shall include, but not be limited to, all of the following information:

(a) A summary analysis of readily available data on the state's hazardous waste generation and management patterns. The analysis shall include information from various data sources including hazardous waste manifests, biennial generator reports, and United States Environmental Protection Agency Toxics Release Inventory reports. The department shall estimate the quantities of hazardous waste generated in the state, by hazardous waste stream, the amounts of hazardous waste generated in the state by industry SIC Code, and the amounts of hazardous waste state generators sent offsite for management, by management method.

(b) An evaluation of hazardous waste source reduction progress in this state, using the data summary analysis prepared pursuant to subdivision (a).

(c) Recommendations for legislation.

(d) Identification of any state, federal, or private economic and financial incentives that can best accelerate and maximize the research and development of source reduction and other hazardous waste management technologies and approaches.

(e) The status, funding, and results of all research projects.

(f) A detailed summary of the extent to which the statewide goal of 5 percent per year reduction of the generation of hazardous wastes, pursuant to subdivision (e) of Section 25244.15, has been attained, and a detailed summary of the extent to which different categories of facilities have attained the numerical goals established pursuant to paragraph (9) of subdivision (b) of Section 25244.19. This summary, which shall use the data summary analysis prepared pursuant to subdivision (a), shall include an evaluation by the department of the reasons why these goals have or have not been attained, including an evaluation of the impact of economic growth or decline and changes in production patterns, and a list of appropriate recommendations designed to ensure attainment of these goals.

(g) An outline of the department's operations and activities under this article proposed for the next two-year period. The department shall use the data summary analysis prepared pursuant to subdivision (a) to select hazardous waste stream and industries for source reduction efforts. When identifying activities for inclusion in the work plan, the department shall also consider potential benefits to human health and the environment, available resources, feasibility of applying source reduction techniques to reduce selected hazardous waste streams and to reduce hazardous wastes generated by selected industries, and availability of related resources from other entities, such as other states, the federal government, local governments, and other organizations.

25244.23. (a) (1) The department shall adopt regulations to ensure that trade secrets designated by a generator in all or a portion of the review and plan or the report required by this article are utilized by the director, the department, the unified program agency, or the appropriate local agency only in connection with the responsibilities of the department pursuant to this article, and that those trade secrets are not otherwise disseminated by the director, the department, the unified program agency, or any authorized representative of the department, or the appropriate local agency, without the consent of the generator.

(2) Any information subject to this section shall be made available to governmental agencies for use in making studies and for use in judicial review or enforcement proceedings involving the person furnishing the information.

(3) As provided by Section 25159.5, the regulations adopted pursuant to this subdivision shall conform with the corresponding trade secret regulations adopted by the Environmental Protection Agency pursuant to the federal act, except that the regulations adopted by the department may be more stringent or more extensive than the federal trade secret regulations.

(4) "Trade secrets," as used in this section, may include, but are not limited to, any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data, or compilation of information that is not patented, that is known only to certain individuals within a commercial concern who are using it to fabricate, produce, or compound an article of trade or a service having commercial value, and that gives its user an opportunity to obtain a business advantage over competitors who do not know or use it.

(b) The department, the unified program agency, and the appropriate local agency shall protect from disclosure any trade secret designated by the generator pursuant to this section. The department shall make available information concerning source reduction approaches that have proved successful, and that do not constitute a trade secret, when carrying out subdivision (c) of Section 25244.17 and to subdivision (a) of Section 25244.18.

(c) This section does not permit a generator to refuse to disclose the information required pursuant to this article to the department, the unified program agency, or the appropriate local agency, an officer or employee of the department, the unified program agency, or the appropriate local agency, in connection with the official duties of that officer or employee under this article.

(d) Any officer or employee of the department, the unified program agency, or the appropriate local agency, or any other person, who, because of his or her employment or official position, has possession of, or has access to, confidential information, and who, knowing that disclosure of the information to the general public is prohibited by this section, knowingly and willfully discloses the

information in any manner to any person not entitled to receive it, is guilty of a misdemeanor and, upon conviction thereof, shall be punished by imprisonment in the county jail not exceeding six months, by a fine not exceeding one thousand dollars (\$1,000), or by both the fine and imprisonment.

25244.24. (a) For purposes of this section the following definitions shall apply:

(1) "Program" means the voluntary program to reduce hazardous waste generation established by this section.

(2) "Release" means a release of a chemical into the environment in any manner and by any means. "Release" includes, but is not limited to, any release authorized or permitted pursuant to a statute, ordinance, regulation, or rule of any federal, state, local, or regional agency or government or by a permit, license, variance or other authorization from the agency or government.

(b) On or before October 1, 2000, the department shall, in consultation with the advisory committee established pursuant to Section 25244.15.1, conduct an inventory and analysis of low-cost voluntary programs that are, or have been conducted by other states, the federal government, or local government entities to reduce hazardous waste generation and other environmental releases of toxic chemicals, and shall develop recommendations for programs that would be effective and feasible in California, based on the inventory and analysis.

(c) In consultation with the advisory committee, large businesses, and the public, the department shall develop a low-cost voluntary program to further reduce generation of hazardous waste by large businesses in California. The program shall be designed to promote cooperative relationships between California business and the department, while creating a significant environmental benefit from reduced hazardous waste generation. The department shall include the program in the work plan required by Section 25244.22 on or before January 15, 2002.

(d) In designing and implementing the program the department shall take into consideration all of the following:

(1) Estimates of the volumes of potential reductions of hazardous waste generation and other possible program benefits.

(2) The types of facilities expected to participate and their current hazardous waste generation and other releases of toxic chemicals into the environment.

(3) The potential for reductions in hazardous waste generation resulting in an increase in releases of toxic chemicals to a different environmental medium.

(4) The potential public health and environmental benefits of the program.

(5) Methods for publicizing the program and encouraging facilities throughout the state to participate in the program.

(6) Providing appropriate public recognition of facilities that successfully are participating in the program.

(7) Establishing a means for monitoring the progress that each facility participating in the program is making toward implementing the program.

(8) Establishing methods for evaluating the implementation of the inventory, analysis, and program and for reporting on the progress of the program in the work plan required pursuant to Section 25244.22.

(9) Procedures for providing technical support to program participants to assist with the implementation of the program.

(e) Participation in the program shall not create a presumption that the participating facility has determined that any chemical release reduction measure is technically feasible or economically practicable pursuant to any other provision of law.

(f) Actions of the department pursuant to this section are exempt from the requirements of Chapter 3.5 (commencing with Section 11340) of Division 3 of Title 2 of the Government Code.

(g) If, on the basis of the inventory and analysis required by in subdivision (b), the department finds that it is not possible to design and implement, at relatively low cost, a voluntary program to promote cooperative relationships between California business and the department, while creating a significant environmental benefit, and the advisory committee concurs with this finding, the department is not required to implement the program.

Appendix B SB 14 Regulations

The following excerpts from CA Code of Regulations, Title 22, Div. 4.5, Ch. 31, includes changes proposed to portions of Sections 67100.1, 67100.2, 67100.3, 67100.5, and 67100.9. The changes are currently under review by the Office of Administrative Law.

§67100.1. Definitions.

For the purpose of this article, the following definitions shall apply:

(a) "Appropriate local agency" means a county, city, or regional association which has adopted a hazardous waste management plan pursuant to Article 3.5, Chapter 6.5, Division 20, Health and Safety code (commencing with section 25135).

(b) "Baseline year" is any of the following, whichever is applicable:

(1) For a generator's initial report, the baseline year is the calendar year, selected by the generator, for which substantial hazardous waste generation, or onsite or offsite management data is available, except the generator may select the current reporting year as the baseline year for the initial report.

(2) For all subsequent reports, the baseline year is the reporting year of the immediately preceding report.

(c) "Concentration" means the amount of a given substance in a stated unit of mixture, solution or waste. For purposes of this article it also means the range of components typically found in the waste.

(d) "Hazardous waste management approaches" means methods and techniques of controlling the generation and handling of hazardous waste, including source reduction, recycling, and treatment of hazardous waste.

(e) "Hazardous waste management performance report" or "report" means the report required by section 67100.7(a) of these regulations to document and evaluate the results of hazardous waste management practices.

(f) "Laboratory" means a facility where the "laboratory use of hazardous chemicals" occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

(g) "Laboratory scale" means work with substances in which the containers used for reactions, transfers, and other handling of

substances are designed to be easily and safely manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of material.

(h) "Laboratory use of hazardous chemicals" means handling or use of such materials in which all of the following conditions are met:

(1) Chemical manipulations are carried out on a "laboratory scale";

(2) Multiple chemical procedures or chemicals are used; and

(3) The procedures involved are not part of a production process, nor in any way simulate a production process.

(i) "Motor vehicle fluids" includes all fluids associated with the operation of a vehicle that is self propelled, for example, transmission oil, hydraulic fluid, brake fluid, antifreeze, power steering fluid, and gasoline.

(j) "Numerical Goal" means a single numerical percentage reflecting an estimate of the source reduction the generator could optimally strive to achieve over a four-year period.

(k) "Reporting year" is the calendar year immediately preceding the year in which plans, reports, and compliance checklist are to be prepared.

(l) "Routinely generated" means:

(1) Hazardous and extremely hazardous wastes that result from ongoing processes or operations.

(2) Hazardous wastes generated from regularly scheduled maintenance or production activities performed less frequently than once a year.

(m) "Small business" means "small business" as defined in Government Code, section 11342(e).

(n) "Source reduction" means one of the following:

(1) Any action which causes a net reduction in the generation of hazardous waste.

(2) Any action taken before the hazardous waste is generated that results in lessening of the properties which cause it to be classified as a

hazardous waste.

(o) "Source reduction evaluation review and plan" or "review and plan" or "plan" means a review conducted by the generator of the processes, operations, and procedures in use at a generator's site, required pursuant to section 67100.4(a) completed according to the format established by the Department of Toxic Substances Control in section 67100.5 of these regulations. Plans do both of the following:

(1) Determine any alternatives to, or modifications of, the generator's processes, operations, and procedures that may be implemented to reduce the amount of hazardous waste generated.

(2) Include a plan to document and implement source reduction measures for the hazardous wastes specified in paragraph (1) which are technically feasible and economically practicable for the generator, including a reasonable implementation schedule.

NOTE: Authority cited: Sections 25150, 25244.15 and 58012, Health and Safety Code.

Reference: Sections 25205.1, 25244.14, 25244.19, 25244.20 and 25501, Health and Safety Code; and Section 11342, Government Code; and Section 25244.12 et seq., Health and Safety Code.

§67100.2. Applicability.

(a) This article applies to generators who, by site, routinely generate, through ongoing processes and operations, more than 12,000 kilograms of hazardous waste in the reporting year, or more than 12 kilograms of extremely hazardous waste in a reporting year.

(b) A generator may petition the Department of Toxic Substances Control in writing to exempt a hazardous waste stream. The generator shall provide documentation to demonstrate that no source reduction opportunities exist for the requested waste stream exemption. The Department of Toxic Substances Control shall public notice the proposed acceptance of any exemption petition. A minimum of 45 days shall be provided for public review and comment prior to the Department of Toxic Substances Control rendering any determination on a petition.

(c) The following hazardous wastes shall not be included in calculating the volume, or comparable weight of waste produced and are not subject to this article:

(1) The following exempted hazardous waste streams:

(A) Motor vehicle fluids and motor vehicle filters.

(B) Lead acid batteries.

(C) Household hazardous wastes, wastes from household collection events and wastes separated at community landfills.

(D) Waste pesticides and pesticide containers collected by County agricultural commissioners.

(E) Spent munitions and ordnance.

(F) Decommissioned utility poles.

(G) Oil generated from decommissioned refrigeration units.

(H) Mercury relays and low-level radioactive tubes generated from removal of telephone equipment.

(I) Lighting wastes including ballasts and fluorescent tubes.

(2) The following hazardous waste streams that are not routinely generated:

(A) Waste from site cleanup and mitigation activities including remedial investigations.

(B) Samples and evidence from enforcement actions.

(C) Asbestos.

(D) PCBs

(E) Formation fluids and solids from oil, gas and geothermal exploration and field development.

(F) Demolition waste/major renovation waste.

(G) Waste generated from emergency response actions.

(H) Waste generated from laboratory scale research.

(3) Medical Waste.

(d) When there is a change in ownership of the business, institution, or facility, the new owner shall have six months from the date of purchase to amend or rewrite the plan and the report. If the new owner fails to revise the plan and report during this time, the existing plan and report shall remain in effect.

(e) When there is a change in the state or federal analysis and testing criteria which causes additional materials to be classified as hazardous waste, these newly classified hazardous wastes shall be considered in calculating the volume, or

comparable weight of hazardous waste produced at the generator's site starting the next reporting year.

(f) Any generator that is a small business may complete the forms contained in the documents listed below and include sections 1, 3, 4, 5, and 6 of the Compliance Checklist Form, September 1993, or January 1997, as the plan. Documents for specific industries are available from the Department of Toxic Substances Control. The generator's most recent biennial report, as required by section 66262.41 can be used as the report required by this article. The following are available from the Department of Toxic Substances Control and are hereby incorporated by reference:

- (1) Waste Audit Study -- Automotive Repairs, May, 1987
- (2) Waste Audit Study -- Automotive Paint Shops, January, 1987
- (3) Waste Audit Study -- General Medical and Surgical Hospitals, August, 1988
- (4) Waste Audit Study -- Paint Manufacturing Industry, April, 1987
- (5) Waste Audit Study -- Drug Manufacturing and Processing Industry, May, 1989
- (6) Waste Audit Study -- Metal Finishing Industry, May, 1988
- (7) Waste Audit Study -- Pesticide Formulating Industry, November, 1987
- (8) Waste Audit Study -- Research and Educational Institutions, August, 1988
- (9) Waste Audit Study -- Photo processing Industry, April, 1989
- (10) Waste Audit Study -- Fiberglass-Reinforced and Composite Plastic Products, April, 1989
- (11) Waste Audit Study -- Marine yards for Maintenance and Repair, August, 1989
- (12) Waste Audit Study -- Building Construction Industry, May, 1990
- (13) Waste Audit Study -- Fabricated Metal Products Industry, August, 1989
- (14) Waste Audit Study -- Gold, Silver, Platinum and Other Precious Metals Product and Reclamation, June, 1990
- (15) Waste Audit Study -- Mechanical Equipment Repair Shops, May, 1990
- (16) Hazardous Waste Reduction Assessment

Handbook -- Auto Repair Shops, October, 1988

(17) Hazardous Waste Reduction Checklist - Auto Repair Shops, October, 1988

(18) Hazardous Waste Reduction Checklist & Assessment Manual for the Metal Finishing Industry, September, 1989

(19) Waste Audit Study -- Printed Circuit Board Manufacturers, June, 1987

(20) Waste Audit Study -- Commercial Printing Industry, May, 1989

(21) Waste Audit Study -- Thermal Metal Working Industry, December, 1990

(22) Hazardous Waste Reduction Checklist & Assessment Manual for Pesticide Formulators, June, 1990

(23) Facility Pollution Prevention Guide, EPA/600/R-92/088, May, 1992

(g) Any generator that is a small business may alternatively complete the Compliance Checklist Form, September 1993, or January 1997, developed by the Department of Toxic Substances Control as the plan.

(h) If a generator owns or operates multiple sites with similar processes, operations, and wastes the generator may prepare a single multisite review and plan, report, or compliance checklist addressing all of these sites.

(i) If a generator owns a large site with multiple operations that are managed as independent businesses, the generator may prepare a separate review and plan, report, or compliance checklist for each independently managed business at the site.

(j) Generators subject to the requirements of this article pursuant to section 67100.4(a) and 67100.7(a) may prepare a single document combining the requirements for the plan and the report.

NOTE: Authority cited: Sections 25150, 25244.15 and 58012, Health and Safety Code.

Reference: Sections 25177.5, 25244.15, 25244.19, 25244.20 and 265244.16, Health and Safety Code; and Section 25244.12 et seq., Health and Safety Code.

§67100.3. Availability Requirements.

(a) Every generator shall retain a copy of the current review and plan, report, summary progress report and compliance checklist at each site, or, for a multisite at a central location, and upon request, shall make it available to any authorized

representative of the Department of Toxic Substances Control or of the unified program agency conducting an inspection pursuant to Section 25185 of the Health and Safety Code.

(b) A copy of the plan, report and summary progress report and compliance checklist shall be made available locally for public review. This may be accomplished by making documents available at the generator's facility, at a public library or at the offices of any local governmental agency which is willing to act as a repository for this information. If any of the above documents contain trade secrets, then a copy which excludes trade secrets shall be made available locally for public review.

NOTE: Authority cited: Sections 25150, 25244.15 and 58012, Health and Safety Code.

Reference: Sections 25185, 25244.13, 25244.18, 25244.21 and 25244.23, Health and Safety Code; and Section 25244.12 et seq., Health and Safety Code.

§67100.4. Plan.

(a) On or before September 1, 1991 and every four years thereafter that hazardous or extremely hazardous waste generation exceeds the thresholds in section 67100.2(a) of these regulations, each generator shall conduct a source reduction evaluation review and plan pursuant to section 67100.5 of these regulations.

(b) Except as provided in sections 67100.2(h) and 67100.2(i) of these regulations, a source reduction evaluation review and plan shall be prepared for each site.

(c) At the time a review and plan is submitted to the Department, the generator shall certify that the generator has implemented, is implementing, or will be implementing, the source reduction measures identified in the review and plan according to the implementation schedule contained in the review and plan. A generator may determine not to implement a source reduction measure selected in section 67100.5(m) of these regulations only if the generator determines, upon conducting further analysis or due to unexpected circumstances, that the selected measure is not technically feasible or economically practicable, or if attempts to implement that measure reveal that the measure would result in, or has resulted in, any of the following:

(1) An increase in the generation of hazardous waste.

(2) An increase in release of hazardous chemicals to other environmental media.

(3) Adverse impacts on product quality.

(4) A significant increase in the risk of an adverse impact to human health or the environment.

(d) If the generator elects not to implement the review and plan, including, but not limited to, a selected measure pursuant to section 67100.5(m) of these regulations, the generator shall amend its review and plan within 90 days to reflect this rejection and include in the review and plan proper documentation identifying the rationale for this rejection.

NOTE: Authority cited: Sections 25150 and 25244.15, Health and Safety Code; and section 58012, Governor's Reorganization Plan, No. 1 of 1991.

Reference: Section 25244.19, Health and Safety Code.

§67100.5. Plan Format.

Except as provided in section 67100.2(f) of these regulations, generators subject to the requirements of this article pursuant to section 67100.2(a), shall prepare a plan with sufficient detail to convey an understanding of the source reduction evaluation review and analysis performed, using narratives, photographs, illustrations, figures or data as necessary, which includes, but is not limited to, all of the following:

(a) Name and location of the site., telephone number and Identification Number.

(b) Four digit SIC codes applicable to activities at the site.

(c) Type of business or activity conducted at each site.

(d) Length of time the company has been in business at the present site.

(e) Major products manufactured or services provided and, if necessary to convey an understanding of the business, their general applications or examples of their applications or end use.

(f) Number of employees.

(g) A general description of site operations with corresponding block diagrams focusing on quantity and type of hazardous wastes, raw materials, and final products produced at the site.

(h) Identification of all routinely generated hazardous waste streams in the current reporting year which result from ongoing processes or

operations that have a yearly volume, or comparable weight exceeding five percent of the total yearly volume, or comparable weight of hazardous waste generated at the site, or, for extremely hazardous waste, five percent of the total yearly volume, or comparable weight generated at the site. Similar industrial processes or institutional activities generating similar wastes (with the same California Waste Codes) shall be considered a single waste stream for purposes of this subsection.

(i) All of the following information for each hazardous waste stream identified in subsection (h) of this section:

(1) An estimate of the weight, in pounds of hazardous waste generated.

(2) The applicable California waste code.

(3) The processes, operations and activities generating the waste(s), with corresponding block diagrams to illustrate the basis of generation including a listing of all input materials which contribute to the generation of hazardous or extremely hazardous waste (this is not meant to be a mass balance).

(j) An evaluation of source reduction measures available to the generator which are potentially viable. The evaluation shall consider at least all of the following approaches:

(1) Input changes.

(2) Operational improvement.

(3) Production process changes.

(4) Product reformulation.

(5) Administrative steps taken to reduce hazardous waste generation including but not limited to:

(A) Inventory control;

(B) Employee award programs;

(C) Employee training;

(D) In-house policies;

(E) Corporate or management commitment; and

(F) Other programs or measures.

(k) Consideration of the following factors for each measure evaluated in accordance with subsection (j) of this section (where a specific factor does not apply identify as N/A):

(1) Expected change in the amount of hazardous waste generated;

(2) Technical feasibility;

(3) Economic evaluation:

(A) Capital cost, operating cost, waste management cost;

(B) Return on investment (ROI), breakdown point, avoided cost, pretax payback period, or any other economic comparison method;

(4) Effects on product quality;

(5) Employee health and safety implications;

(6) Permits, variances, compliance schedules or applicable state local and federal agencies;

(7) Releases and discharges.

(l) Any pertinent information, such as waste stream constituents and concentration of constituents, needed to evaluate and implement source reduction measures.

(m) A specification of, and a rationale for, the technically feasible and economically practicable source reduction measures which will be taken by the generator with respect to each hazardous waste stream identified in subsection (h) of this section. The specification should include at a minimum, a narrative description of the factors in subsection (k) of this section and also address system capacity and efficiency. Photographs, illustrations, figures or data should be used to convey an understanding of the source reduction measure in sufficient detail to allow transfer of the measure to other generators with similar processes or procedures.

(n) An evaluation, and, to the extent practicable, a quantification of the effects of any source reduction measure selected in subsection (m) on emissions and discharges to air, water, or land.

(o) A list of each measure considered but not selected for a detailed evaluation as a potentially viable source reduction measure. For each measure rejected, explain the generator's rationale. This list shall be supplemented for waste streams where no measures were identified with a narrative demonstrating the good faith efforts undertaken to identify measures.

(p) A timetable for making reasonable and measurable progress towards implementation of the selected source reduction measures specified in subsection (m) of this section. It shall also include an implementation schedule for completing the evaluation of potentially viable source reduction measures and it shall prioritize processes and wastes for future research, development and source reduction analysis.

(q) All plans prepared after January 1, 1993 shall contain a four-year numerical goal for reducing the generation of hazardous waste streams through the selected source reduction measures specified in subsection (m) of this section.

NOTE: Authority cited: Sections 25150, 25244.15, 25244.16 and 58012, Health and Safety Code.

Reference: Section 25244.19, Health and Safety Code; and Section 25244.12 et seq., Health and Safety Code.

§67100.7. Report.

(a) On or before September 1, 1991, and every four years thereafter that hazardous or extremely hazardous waste generation exceeds the thresholds in section 67100.2(a) of these regulations, each generator shall prepare a hazardous waste management performance report pursuant to section 67100.8 of these regulations.

(b) Except as provided in sections 67100.2(h) and 67100.2(i) of these regulations, the hazardous waste management performance report shall be prepared for each site.

NOTE: Authority cited: Sections 25150 and 25244.15, Health and Safety Code; and section 58012, Governor's Reorganization Plan, No. 1 of 1991. Reference: Section 25244.20, Health and Safety Code.

§67100.8. Report Format.

(a) Except as provided in section 67100.2(f) of these regulations and in subsection (b) of this section, each generator shall prepare a report with sufficient detail to convey an understanding of the hazardous waste management approaches used at the site, using narratives, photographs, illustrations, figures or data as necessary, which includes, at a minimum, all of the following:

(1) Name and location of the site

(2) Four digit SIC code(s) for the site

(3) All of the following information for each waste stream identified pursuant to section 67100.5(h) of these regulations:

(A) An estimate, in pounds, of the quantity of hazardous waste generated and the quantity of hazardous waste managed, both onsite and offsite, during the current reporting year and the baseline year.

(B) A description of current hazardous waste management approaches and identification of all approaches implemented since the baseline year.

(C) An assessment of the effect, since the baseline year, of each implemented hazardous waste management approach on the weight of hazardous waste generated, the properties which cause it to be classified as a hazardous waste and/or the onsite and offsite management of hazardous waste. The report shall consider, but shall not be limited to all of the following approaches:

1. Source reduction;
2. Onsite or offsite recycling;
3. Onsite or offsite treatment.

(D) A description of factors during the current reporting year that have affected hazardous waste generation and onsite and offsite hazardous waste management since the baseline year, including, but not limited to, any of the following:

1. Changes in business activity;
2. Changes in waste classification;
3. Natural phenomena and;
4. Other factors that have affected either the quantity of hazardous waste generated or onsite and offsite hazardous waste management requirements.

(b) If the generator selects the current reporting year as the baseline year, the information required pursuant to subsection (a)(3) of this section shall be provided for the reporting year only.

NOTE: Authority cited: Sections 25150, 25244.15, 25244.16 and 58012, Health and Safety Code. Reference: Section 25244.20, Health and Safety Code; and Section 25244.12 et seq., Health and Safety Code.

67100.9 Summary Progress Report.

(a) Generators subject to the requirements of this article shall prepare a summary progress report and submit it to the Department of Toxic Substances Control on or before September 1, 1999 and every four years thereafter.

(b) Generators shall complete the Department of Toxic Substances Control's Form # 1262 titled, "Summary Progress Report" as their summary progress report. This document is incorporated by reference.

NOTE: Authority cited: Sections 25150, 25244.15, 25244.16 and 58012, Health and Safety Code. Reference: Section 25244.19, Health and Safety Code; and Section 25244.12 et seq., Health and Safety Code.

§67100.13. Certification Requirements.

(a) The review and plan, report, and compliance checklist, completed pursuant to this article shall be reviewed by an engineer who is registered as a professional engineer pursuant to section 6762 of the Business and Professions Code, by an individual who is responsible for the processes and operations of the site, or by an environmental assessor who is registered pursuant to section 25570 Health and Safety Code.

(b) The engineer, individual, or environmental assessor shall certify the review and plan only if the review and plan meet all of the following requirements:

(1) The review and plan addresses each hazardous waste stream identified pursuant to section 67100.5(h) of these regulations.

(2) The review and plan addresses the source reduction approaches specified in section 67100.5(j) of these regulations.

(3) The plan clearly sets forth the measures to be taken with respect to each hazardous waste stream for which source reduction has been found to be technically feasible and economically practicable, with timetables for making reasonable and measurable progress, and documents the rationale for rejecting available source reduction measures.

(4) The plan does not merely shift hazardous waste from one environmental medium to another environmental medium by increasing emissions or discharges to air, water, or land.

(c) The engineer, individual, or environmental assessor shall certify that compliance checklist has been completed.

(d) The engineer, individual, or environmental assessor shall certify the report only if the report meets the following requirement:

(1) The report identifies factors that affect the generation and onsite and offsite management of hazardous wastes and summarizes the effect of those factors on the generation and onsite and offsite management of hazardous wastes.

(e) The plan, report, and compliance checklist shall contain the following language signed and dated by either the owner, the operator, or the responsible corporate officer of the site or an authorized individual; who is capable of committing financial resources necessary to implement the source reduction measures:

"I certify that this document and all attachments

were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for making false statements or representations to the Department, including the possibility of fines for criminal violations."

NOTE: Authority cited: Sections 25150 and 25244.15, Health and Safety Code; and section 58012, Governor's Reorganization Plan, No. 1 of 1991. Reference: Sections 25189.2, 25244.19, 25244.20 and 25570.3, Health and Safety Code.

§67100.14. Trade Secrets.

(a) Any information submitted to the Department pursuant to this article may be claimed as confidential by the generator. Any such claim shall be asserted at the time of submission by placing the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, the Department shall make the information available to the public without further notice. If a claim is asserted, the information shall be treated in accordance with 40 CFR part 2 and the Health and Safety Code, sections 25173 and 25244.23.

(b) If a claim of confidentiality is asserted, two versions of the document shall be submitted: one version with the confidential pages and one version without the confidential pages but with a clear indication of which pages are removed as confidential.

NOTE: Authority cited: Sections 25150, 25244.15 and 25244.23, Health and Safety Code; and section 58012, Governor's Reorganization Plan, No. 1 of 1991. Reference: Section 25244.23, Health and Safety Code.

Appendix C Standard Industrial Classification Codes

Agricultural Production--Crops

0111 Wheat
0112 Rice
0115 Corn
0116 Soybeans
0119 Cash grains, not elsewhere classified (nec)
0131 Cotton
0132 Tobacco
0133 Sugar cane and sugar beets
0134 Irish potatoes
0139 Field crops, except cash grains, nec
0161 Vegetables and melons
0171 Berry crops
0172 Grapes
0173 Tree nuts
0174 Citrus fruits
0175 Deciduous tree fruits
0179 Fruits and tree nuts, nec
0181 Ornamental nursery products
0182 Food crops grown under cover
0191 General farms, primarily crops

Agricultural Production--Livestock

0211 Beef cattle feedlots
0212 Beef cattle, except feedlots
0213 Hogs
0214 Sheep and goats
0219 General livestock, nec
0241 Dairy farms
0251 Broiler, fryer, and roaster chickens
0252 Chicken eggs
0253 Turkeys and turkey eggs
0254 Poultry hatcheries
0259 Poultry and eggs, nec
0271 Fur-bearing animals and rabbits
0272 Horses and other equines
0273 Animal aquaculture

0279 Animal specialties, nec
0291 General farms, primarily animal

Agricultural Services

0711 Soil preparation services
0721 Crop planting and protecting
0722 Crop harvesting
0723 Crop preparation services for market
0724 Cotton ginning
0741 Veterinary services, for livestock
0742 Veterinary services, specialties
0751 Livestock services, except veterinary
0752 Animal specialty services
0761 Farm labor contractors
0762 Farm management services
0781 Landscape counseling and planning
0782 Lawn and garden services
0783 Ornamental shrub and tree services

Forestry

0811 Timber tracts
0831 Forest products
0851 Forestry services

Fishing, Hunting, and Trapping

0912 Finfish
0913 Shellfish
0919 Miscellaneous marine products
0921 Fish hatcheries and preserves
0971 Hunting, trapping, game propagation

Metal Mining

1011 Iron ores
1021 Copper ores
1031 Lead and zinc ores
1041 Gold ores
1044 Silver ores

1061 Ferroalloy ores, except vanadium
1081 Metal mining services
1094 Uranium, radium, vanadium ores
1099 Metal ores, nec

Coal Mining

1221 Bituminous coal and lignite - surface
1222 Bituminous coal - underground
1231 Anthracite mining
1241 Coal mining services

Oil and Gas Extraction

1311 Crude petroleum and natural gas
1321 Natural gas liquids
1381 Drilling oil and gas wells
1382 Oil and gas exploration services
1389 Oil and gas field services, nec

Nonmetallic Minerals, Except Fuels

1411 Dimension stone
1422 Crushed and broken limestone
1423 Crushed and broken granite
1429 Crushed and broken stone, nec
1442 Construction sand and gravel
1446 Industrial sand
1455 Kaolin and ball clay
1459 Clay and related minerals, nec
1474 Potash, soda and borate minerals
1475 Phosphate rock
1479 Chemical and fertilizer mining, nec
1481 Nonmetallic minerals services
1499 Miscellaneous nonmetallic minerals, nec

General Building Contractors

1521 Single-family housing construction
1522 Residential construction, nec
1531 Operative builders
1541 Industrial buildings and warehouses
1542 Nonresidential construction, nec

Heavy Construction, Excluding Buildings

1611 Highway and street construction
1622 Bridge, tunnel, and elevated highway

1623 Water, sewer, and utility lines
1629 Heavy construction, nec

Special Trade Contractors

1711 Plumbing, heating, air conditioning
1721 Painting and paper hanging
1731 Electrical work
1741 Masonry and other stonework
1742 Plastering, drywall, and insulation
1743 Terrazzo, tile, marble, mosaic work
1751 Carpentry work
1752 Floor laying and floor work, nec
1761 Roofing, siding, and sheet metal work
1771 Concrete work
1781 Water well drilling
1791 Structural steel erection
1793 Glass and glazing work
1794 Excavation work
1795 Wrecking and demolition work
1796 Installing building equipment, nec
1799 Special trade contractors, nec

Food and Kindred Products

2011 Meat packing plants
2013 Sausages and other prepared meats
2015 Poultry slaughtering and processing
2021 Creamery butter
2022 Cheese, natural and processed
2023 Dry, condensed, evaporated products
2024 Ice cream and frozen desserts
2026 Fluid milk
2032 Canned specialties
2033 Canned fruits and vegetables
2034 Dehydrated fruits, vegetables, soups
2035 Pickles, sauces, and salad dressings
2037 Frozen fruits and vegetables
2038 Frozen specialties, nec
2041 Flour and other grain mill products
2043 Cereal breakfast foods
2044 Rice milling
2045 Prepared flour mixes and doughs
2046 Wet corn milling
2047 Dog and cat food

2048 Prepared feeds, nec
 2051 Bread, cake, and related products
 2052 Cookies and crackers
 2053 Frozen bakery products, except bread
 2061 Raw cane sugar
 2062 Cane sugar refining
 2063 Beet sugar
 2064 Candy and other confectionery products
 2066 Chocolate and cocoa products
 2067 Chewing gum
 2068 Salted and roasted nuts and seeds
 2074 Cottonseed oil mills
 2075 Soybean oil mills
 2076 Vegetable oil mills, nec
 2077 Animal and marine fats and oils
 2079 Edible fats and oils, nec
 2082 Malt beverages
 2083 Malt
 2084 Wines, brandy, and brandy spirits
 2085 Distilled and blended liquors
 2086 Bottled and canned soft drinks
 2087 Flavoring extracts and syrups, nec
 2091 Canned and cured fish and seafood
 2092 Fresh or frozen prepared fish
 2095 Roasted coffee
 2097 Manufactured ice
 2098 Macaroni and spaghetti
 2099 Food preparations, nec

Tobacco Products

2111 Cigarettes
 2121 Cigars
 2131 Chewing and smoking tobacco
 2141 Tobacco stemming and redrying

Textile Mill Products

2211 Broadwoven fabric mills, cotton
 2221 Broadwoven fabric mills, man-made
 2231 Broadwoven fabric mills, wool
 2241 Narrow fabric mills
 2251 Women's hosiery, except socks
 2252 Hosiery, nec
 2253 Knit outerwear mills

2254 Knit underwear mills
 2257 Weft knit fabric mills
 2258 Lace and warp knit fabric mills
 2259 Knitting mills, nec
 2261 Finishing plants, cotton
 2262 Finishing plants, man-made
 2269 Finishing plants, nec
 2273 Carpets and rugs
 2281 Yarn spinning mills
 2282 Throwing and winding mills
 2284 Thread mills
 2295 Coated fabrics, not rubberized
 2296 Tire cord and fabrics
 2297 Nonwoven fabrics
 2298 Cordage and twine
 2299 Textile goods, nec

Apparel and Other Textile Products

2311 Men's and boys' suits and coats
 2321 Men's and boys' shirts
 2322 Men's and boys' underwear and nightwear
 2323 Men's and boys' neckwear
 2325 Men's and boys' trousers and slacks
 2326 Men's and boys' work clothing
 2329 Men's and boys' clothing, nec
 2331 Women's and misses' blouses and shirts
 2335 Women's, juniors' and misses' dresses
 2337 Women's and misses' suits and coats
 2339 Women's and misses' outerwear, nec
 2341 Women's and children's underwear
 2342 Bras, girdles, and allied garments
 2353 Hats, caps, and millinery
 2361 Girls' and children's dresses, blouses
 2369 Girls' and children's outerwear, nec
 2371 Fur goods
 2381 Fabric dress and work gloves
 2384 Robes and dressing gowns
 2385 Waterproof outerwear
 2386 Leather and sheep lined clothing
 2387 Apparel belts
 2389 Apparel and accessories, nec
 2391 Curtains and draperies
 2392 House furnishing, nec

2393 Textile bags
2394 Canvas and related products
2395 Pleating and stitching
2396 Automotive and apparel trimmings
2397 Schiffli machine embroideries
2399 Fabricated textile products, nec

Lumber and Wood Products

2411 Logging
2421 Sawmills and planing mills, general
2426 Hardwood dimension and flooring mills
2429 Special product sawmills, nec
2431 Millwork
2434 Wood kitchen cabinets
2435 Hardwood veneer and plywood
2436 Softwood veneer and plywood
2439 Structural wood members, nec
2441 Nailed wood boxes and shooks
2448 Wood pallets and skids
2449 Wood containers, nec
2451 Mobile homes
2452 Prefabricated wood buildings
2491 Wood preserving
2493 Reconstituted wood products
2499 Wood products, nec

Furniture and Fixtures

2511 Wood household furniture
2512 Upholstered household furniture
2514 Metal household furniture
2515 Mattresses and bedsprings
2517 Wood TV and radio cabinets
2519 Household furniture, nec
2521 Wood office furniture
2522 Office furniture, except wood
2531 Public building and related furniture
2541 Wood partitions and fixtures
2542 Partitions and fixtures, except wood
2591 Drapery hardware and blinds and shades
2599 Furniture and fixtures, nec

Paper and Allied Products

2611 Pulp mills

2621 Paper mills
2631 Paperboard mills
2652 Set-up paperboard boxes
2653 Corrugated and solid fiber boxes
2655 Fiber cans, drums, and similar products
2656 Sanitary food containers
2657 Folding paperboard boxes
2671 Paper coated and laminated, packaging
2672 Paper coated and laminated, nec
2673 Bags - plastics, laminated and coated
2674 Bags - uncoated paper and multiwall
2675 Die-cut paper and board
2676 Sanitary paper products
2677 Envelopes
2678 Stationery products
2679 Converted paper products, nec

Printing and Publishing

2711 Newspapers
2721 Periodicals
2731 Book publishing
2732 Book printing
2741 Miscellaneous publishing
2752 Commercial printing, lithographic
2754 Commercial printing, gravure
2759 Commercial printing, nec
2761 Manifold business forms
2771 Greeting cards
2782 Blank books and loose-leaf binders
2789 Bookbinding and related work
2791 Typesetting
2796 Plate making services

Chemicals and Allied Products

2812 Alkalies and chlorine
2813 Industrial gases
2816 Inorganic pigments
2819 Industrial inorganic chemicals, nec
2821 Plastics materials and resins
2822 Synthetic rubber
2823 Cellulosic man-made fibers
2824 Organic fibers, noncellulosic
2833 Medicinals and botanicals

2834 Pharmaceutical preparations
 2835 Diagnostic substances
 2836 Biological products, except diagnostic
 2841 Soap and other detergents
 2842 Polishes and sanitation goods
 2843 Surface active agents
 2844 Toilet preparations
 2851 Paints and allied products
 2861 Gum and wood chemicals
 2865 Cyclic crudes and intermediates
 2869 Industrial organic chemicals, nec
 2873 Nitrogenous fertilizers
 2874 Phosphatic fertilizers
 2875 Fertilizers, mixing only
 2879 Agricultural chemicals, nec
 2891 Adhesives and sealants
 2892 Explosives
 2893 Printing ink
 2895 Carbon black
 2899 Chemical preparations, nec

Petroleum and Coal Products

2911 Petroleum refining
 2951 Asphalt paving mixtures and blocks
 2952 Asphalt felts and coatings
 2992 Lubricating oils and greases
 2999 Petroleum and coal products, nec

Rubber and Miscellaneous Plastic Products

3011 Tires and inner tubes
 3021 Rubber and plastics footwear
 3052 Rubber and plastics hose and belting
 3053 Gaskets, packing and sealing devices
 3061 Mechanical rubber goods
 3069 Fabricated rubber products, nec
 3081 Unsupported plastics, film and sheet
 3082 Unsupported plastics, profile shapes
 3083 Laminated plastics, plate and sheet
 3084 Plastics, pipe
 3085 Plastics, bottles
 3086 Plastics, foam products
 3087 Custom compound purchased resins
 3088 Plastics, plumbing fixtures

3089 Plastics products, nec

Leather and Leather Products

3111 Leather tanning and finishing
 3131 Footwear, cut stock
 3142 House slippers
 3143 Men's footwear, except athletic
 3144 Women's footwear, except athletic
 3149 Footwear, except rubber, nec
 3151 Leather gloves and mittens
 3161 Luggage
 3171 Women's handbags and purses
 3172 Personal leather goods, nec
 3199 Leather goods, nec

Stone, Clay, and Glass Products

3211 Flat glass
 3221 Glass containers
 3229 Pressed and blown glass, nec
 3231 Products of purchased glass
 3241 Cement, hydraulic
 3251 Brick-and structural clay tile
 3253 Ceramic wall and floor tile
 3255 Clay refractories
 3259 Structural clay products, nec
 3261 Vitreous plumbing fixtures
 3262 Vitreous china table and kitchenware
 3263 Semivitreous table and kitchenware
 3464 Porcelain electrical supplies
 3269 Pottery products, nec
 3271 Concrete block and brick
 3272 Concrete products, nec
 3273 Ready-mixed concrete
 3274 Lime
 3275 Gypsum products
 3281 Cut stone and stone products
 3291 Abrasive products
 3292 Asbestos products
 3295 Minerals, ground or treated
 3296 Mineral wool
 3297 Nonclay refractories
 3299 Nonmetallic mineral products, nec

Primary Metal Industries

3312 Blast furnaces and steel mills
3313 Electrometallurgical products
3315 Steel wire and related products
3316 Cold finishing of steel shapes
3317 Steel pipe and tubes
3321 Gray and ductile iron foundries
3322 Malleable iron foundries
3324 Steel investment foundries
3325 Steel foundries, nec
3331 Primary copper
3334 Primary aluminum
3339 Primary nonferrous metals, nec
3341 Secondary nonferrous metals
3351 Copper rolling and drawing
3353 Aluminum sheet, plate, and foil
3354 Aluminum extruded products
3355 Aluminum rolling and drawing, nec
3356 Nonferrous rolling and drawing, nec
3357 Nonferrous wire drawing and insulating
3363 Aluminum die-castings
3364 Nonferrous die-castings, except aluminum
3365 Aluminum foundries
3366 Copper foundries
3369 Nonferrous foundries, nec
3398 Metal heat treating
3399 Primary metal products, nec

Fabricated Metal Products

3411 Metal cans
3412 Metal barrels, drums, and pails
3421 Cutlery
3423 Hand and edge tools, nec
3425 Saw blades and handsaws
3429 Hardware, nec
3431 Metal sanitary ware
3432 Plumbing fixture fittings and trim
3433 Heating equipment, except electric
3441 Fabricated structural metal
3442 Metal doors, sash, and trim
3443 Fabricated plate work (boiler shops)
3444 Sheet metal work
3446 Architectural metal work

3448 Prefabricated metal buildings
3449 Miscellaneous metal work
3451 Screw machine products
3452 Bolts, nuts, rivets, and washers
3462 Iron and steel forging
3463 Nonferrous forging
3465 Automotive stamping
3466 Crowns and closures
3469 Metal stamping, nec
3471 Plating and polishing
3479 Metal coating and allied services
3482 Small arms ammunition
3483 Ammunition, except for small arms, nec
3484 Small arms
3489 Ordnance and accessories, nec
3491 Industrial valves
3492 Fluid power valves and hose fittings
3493 Steel springs, except wire
3494 Valves and pipe fittings, nec
3495 Wire springs
3496 Miscellaneous fabricated wire products
3497 Metal foil and leaf
3498 Fabricated pipe and fittings
3499 Fabricated metal products, nec

Industrial Machinery and Equipment

3511 Turbines and turbine generator sets
3519 Internal combustion engines, nec
3523 Farm machinery and equipment
3524 Lawn and garden equipment
3531 Construction machinery
3532 Mining machinery
3533 Oil and gas field machinery
3534 Elevators and moving stairways
3535 Conveyors and conveying equipment
3536 Hoists, cranes, and monorails
3537 Industrial trucks and tractors
3541 Machine tools, metal cutting types
3542 Machine tools, metal forming types
3543 Industrial patterns
3544 Special dies, tools, jigs, and fixture
3545 Machine tool accessories
3546 Power driven hand tools

3547 Rolling mill machinery
 3548 Welding apparatus
 3549 Metalworking machinery, nec
 3552 Textile machinery
 3553 Woodworking machinery
 3554 Paper industries machinery
 3555 Printing trades machinery
 3556 Food products machinery
 3559 Special industry machinery, nec
 3561 Pumps and pumping equipment
 3562 Ball and roller bearings
 3563 Air and gas compressors
 3564 Blowers and fans
 3565 Packaging machinery
 3566 Speed changers, drives, and gears
 3567 Industrial furnaces and ovens
 3568 Power transmission equipment, nec
 3569 General industrial machinery, nec
 3571 Electronic computers
 3572 Computer storage devices
 3575 Computer terminals
 3577 Computer peripheral equipment, nec
 3578 Calculating and accounting equipment
 3579 Office machines, nec
 3581 Automatic vending machines
 3582 Commercial laundry equipment
 3585 Refrigeration and heating equipment
 3586 Measuring and dispensing pumps
 3589 Service industry machinery, nec
 3592 Carburetors, pistons, rings, valves
 3593 Fluid power cylinders and actuators
 3594 Fluid power pumps and motors
 3596 Scales and balances, except laboratory
 3599 Industrial machinery, nec

Electronic and Other Electric Equipment

3612 Transformers, except electronic
 3613 Switchgear and switchboard apparatus
 3621 Motors and generators
 3624 Carbon and graphite products
 3625 Relays and industrial controls
 3629 Electrical industrial apparatus, nec
 3631 Household cooking equipment

3632 Household refrigerators and freezers
 3633 Household laundry equipment
 3634 Electric housewares and fans
 3635 Household vacuum cleaners
 3639 Household appliances, nec
 3641 Electric lamps
 3643 Current-carrying wiring devices
 3644 Noncurrent-carrying wiring devices
 3645 Residential lighting fixtures
 3646 Commercial lighting fixtures
 3647 Vehicular lighting equipment
 3648 Lighting equipment, nec
 3651 Household audio and video equipment
 3652 Prerecorded records and tapes
 3661 Telephone and telegraph apparatus
 3663 Radio and TV communication equipment
 3669 Communications equipment, nec
 3671 Electron tubes
 3672 Printed circuit boards
 3674 Semiconductors and related devices
 3675 Electronic capacitors
 3676 Electronic resistors
 3677 Electronic coils and transformers
 3678 Electronic connectors
 3679 Electronic components, nec
 3691 Storage batteries
 3692 Primary batteries, dry and wet
 3694 Engine electrical equipment
 3695 Magnetic and optical recording media
 3699 Electrical equipment and supplies, nec

Transportation Equipment

3711 Motor vehicles and car bodies
 3713 Truck and bus bodies
 3714 Motor vehicle parts and accessories
 3715 Truck trailers
 3716 Motor homes
 3721 Aircraft
 3724 Aircraft engines and engine parts
 3728 Aircraft parts and equipment, nec
 3731 Ship building and repairing
 3732 Boat building and repairing
 3743 Railroad equipment

3751 Motorcycles, bicycles, and parts
3761 Guided missiles and space vehicles
3764 Space propulsion units and parts
3769 Space vehicle equipment, nec
3792 Travel trailers and campers
3795 Tanks and tank components
3799 Transportation equipment, nec

Instruments and Related Products

3812 Search and navigation equipment
3821 Laboratory apparatus and furniture
3822 Environmental controls
3823 Process control instruments
3824 Fluid meters and counting devices
3825 Instruments to measure electricity
3826 Analytical instruments
3827 Optical instruments and lenses
3829 Measuring and controlling devices, nec
3841 Surgical and medical instruments
3842 Surgical appliances and supplies
3843 Dental equipment and supplies
3844 X-ray apparatus and tubes
3845 Electromedical equipment
3851 Ophthalmic goods
3861 Photographic equipment and supplies
3873 Watches, clocks, watchcases, and parts

Miscellaneous Manufacturing Industries

3911 Jewelry, precious metal
3914 Silverware and plated ware
3915 Jewelers' materials and lapidary work
3931 Musical instruments
3942 Dolls and stuffed toys
3944 Games, toys, and children's vehicles
3949 Sporting and athletic goods, nec
3951 Pens and mechanical pencils
3952 Lead pencils and art goods
3953 Marking devices
3955 Carbon paper and inked ribbons
3961 Costume jewelry
3965 Fasteners, buttons, needles, and pins
3991 Brooms and brushes
3993 Signs and advertising specialties

3995 Burial caskets
3996 Hard surface floor coverings, nec
3999 Manufacturing industries, nec

Railroad Transportation

4011 Railroads, line-haul operating
4013 Switching and terminal devices

Local and Interurban Passenger Transit

4111 Local and suburban transit
4119 Local passenger transportation, nec
4121 Taxicabs
4131 Intercity and rural bus transportation
4141 Local bus charter service
4142 Bus charter service, except local
4151 School buses
4173 Bus terminal and service facilities

Trucking and Warehousing

4212 Local trucking, without storage
4213 Trucking, except local
4214 Local trucking with storage
4215 Courier services, except by air
4221 Farm product warehousing and storage
4222 Refrigerated warehousing and storage
4225 General warehousing and storage
4226 Special warehousing and storage, nec
4231 Trucking terminal facilities

U.S. Postal Service

4311 U.S. Postal Service

Water Transportation

4412 Deep sea foreign transportation of freight
4424 Deep sea domestic trans. of freight
4432 Freight transportation, on the Great Lakes
4449 Water transportation of freight, nec
4481 Deep sea passenger trans., except ferry
4482 Ferries
4489 Water passenger transportation, nec
4491 Marine cargo handling
4492 Towing and tugboat service
4493 Marinas

4499 Water transportation services, nec

Transportation by Air

4512 Air transportation, scheduled

4513 Air courier services

4522 Air transportation, nonscheduled

4581 Airports, flying fields, and services

Pipelines, Except Natural Gas

4612 Crude petroleum pipelines

4613 Refined petroleum pipelines

4619 Pipelines, nec

Transportation Services

4724 Travel agencies

4725 Tour operators

4729 Passenger transportation arrangement, nec

4731 Freight transportation arrangement

4741 Rental of railroad cars

4783 Packing and crating

4785 Inspection and fixed facilities

4789 Transportation services, nec

Communications

4812 Radiotelephone communications

4813 Telephone communications, except radio

4822 Telegraph and other communications

4832 Radio broadcasting stations

4833 Television broadcasting stations

4841 Cable and other pay TV services

4899 Communication services, nec

Electric, Gas, and Sanitary services

4911 Electric services

4922 Natural gas transmission

4923 Gas transmission and distribution

4924 Natural gas distribution

4925 Gas production and/or distribution

4931 Electric and other services combined

4932 Gas and other services combined

4939 Combination utilities, nec

4941 Water supply

4952 Sewerage systems

4953 Refuse systems

4959 Sanitary services, nec

4961 Steam and air conditioning supply

4971 Irrigation systems

Wholesale Trade, Durable Goods

5012 Automobiles and other motor vehicles

5013 Motor vehicle supplies and new parts

5014 Tires and tubes

5015 Motor vehicle parts, used

5021 Furniture

5023 Home furnishings

5031 Lumber, plywood, and millwork

5032 Brick, stone, and related materials

5033 Roofing, siding, and insulation

5039 Construction materials, nec

5043 Photographic equipment and supplies

5044 Office equipment

5045 Computers, peripherals, and software

5046 Commercial equipment, nec

5047 Medicinal and hospital equipment

5048 Ophthalmic goods

5049 Professional equipment, nec

5051 Metals service centers and offices

5052 Coal and other minerals and ores

5063 Electrical apparatus and equipment

5064 Electrical appliances, TV and radios

5065 Electronic parts and equipment

5072 Hardware

5074 Plumbing and hydronic heating supplies

5075 Warm air heating and air conditioning

5078 Refrigeration equipment and supplies

5082 Construction and mining machinery

5083 Farm and garden machinery

5084 Industrial machinery and equipment

5085 Industrial supplies

5087 Service establishment equipment

5088 Transportation equipment and supplies

5091 Sporting and recreational goods

5092 Toys and hobby goods and supplies

5093 Scrap and waste materials

5094 Jewelry and precious stones

5099 Durable goods, nec

Wholesale Trade, Nondurable Goods

5111 Printing and writing paper
5112 Stationery and office supplies
5113 Industrial and personal service paper
5122 Drugs, proprietaries, and sundries
5131 Piece goods and notions
5136 Men's and boys' clothing
5137 Women's and children's clothing
5139 Footwear
5141 Groceries, general line
5142 Packaged frozen foods
5143 Dairy products, except dried or canned
5144 Poultry and poultry products
5145 Confectionery
5146 Fish and seafood
5147 Meats and meat products
5148 Fresh fruits and vegetables
5149 Groceries and related products, nec
5153 Grain and field beans
5154 Livestock
5159 Farm-product raw materials, nec
5162 Plastics materials and basic shapes
5169 Chemicals and allied products, nec
5171 Petroleum bulk stations and terminals
5172 Petroleum products, nec
5181 Beer and ale
5182 Wines and distilled beverages
5191 Farm supplies
5192 Books, periodicals, and newspapers
5193 Flowers and florists' supplies
5194 Tobacco and tobacco products
5198 Paints, varnishes, and supplies
5199 Nondurable goods, nec

Building Materials and Garden Supplies

5211 Lumber and other building materials
5231 Paint, glass, and wallpaper stores
5251 Hardware stores
5261 Retail nurseries and gardens
5271 Mobile home dealers

General Merchandise Stores

5311 Department stores

5331 Variety stores
5399 Miscellaneous general merchandise stores

Food Stores

5411 Grocery stores
5421 Meat and fish markets
5431 Fruit and vegetable markets
5441 Candy, nut, and confectionery stores
5451 Dairy products stores
5461 Retail bakers
5499 Miscellaneous food stores

Automotive Dealers and Service Stations

5511 New and used car dealers
5521 Used car dealers
5531 Auto and home supply stores
5541 Gasoline service stations
5551 Boat dealers
5561 Recreational vehicle dealers
5571 Motorcycle dealers
5599 Automotive dealers, nec

Apparel and Accessory Stores

5611 Men's and boys' clothing stores
5621 Women's clothing stores
5632 Women's accessory and specialty stores
5641 Children's and infants' wear stores
5651 Family clothing stores
5661 Shoe stores
5699 Miscellaneous apparel and accessory stores

Furniture and Home furnishings Stores

5712 Furniture stores
5713 Floor covering stores
5714 Drapery and upholstery stores
5719 Miscellaneous home furnishings stores
5722 Household appliance stores
5731 Radio, TV, and electronic stores
5734 Computer and software stores
5735 Record and prerecorded tape stores
5736 Musical instruments stores

Eating and Drinking Places

- 5812 Eating places
- 5813 Drinking places

Miscellaneous Retail

- 5912 Drugstores and proprietary stores
- 5921 Liquor stores
- 5932 Used merchandise stores
- 5941 Sporting goods and bicycle shops
- 5942 Book stores
- 5943 Stationery stores
- 5944 Jewelry stores
- 5945 Hobby, toy, and game shops
- 5946 Camera and photographic supply stores
- 5947 Gift, novelty, and souvenir shops
- 5948 Luggage and leather goods stores
- 5949 Sewing, needlework, and piece goods
- 5961 Catalog and mail order houses
- 5962 Merchandising machine operators
- 5963 Direct selling organizations
- 5983 Fuel oil dealers
- 5989 Fuel dealers, nec
- 5984 Liquefied petroleum gas dealers
- 5992 Florists
- 5993 Cigar stores and stands
- 5994 News dealers and newsstands
- 5995 Optical goods stores
- 5999 Miscellaneous retail stores, nec

Depository Institutions

- 6011 Federal Reserve banks
- 6019 Central reserve depository, nec
- 6021 National commercial banks
- 6022 State commercial banks
- 6029 Commercial banks, nec
- 6035 Federal savings institutions
- 6036 Savings institutions, except federal
- 6061 Federal credit unions
- 6062 State credit unions
- 6081 Foreign banks and branches and agencies
- 6082 Foreign trade and international banks
- 6091 Nondeposit trust facilities
- 6099 Functions related to deposit banking

Nondepository Institutions

- 6111 Federal and federally-sponsored credit
- 6141 Personal credit institutions
- 6153 Short-term business credit
- 6159 Miscellaneous business credit institutions
- 6162 Mortgage bankers and correspondents
- 6163 Loan brokers

Security and Commodity Brokers

- 6211 Security brokers and dealers
- 221 Commodity contracts brokers, dealers
- 6231 Security and commodity exchanges
- 6282 Investment advice
- 6289 Security and commodity services, nec

Insurance Carriers

- 6311 Life insurance
- 6321 Accident and health insurance
- 6324 Hospital and medical service plans
- 6331 Fire, marine, and casualty insurance
- 6351 Surety insurance
- 6361 Title insurance
- 6371 Pension, health, and welfare funds
- 6399 Insurance carriers, nec

Insurance Agents, Brokers, and Service

- 6411 Insurance agents, brokers, and service

Real Estate

- 6512 Nonresidential building operators
- 6513 Apartment building operators
- 6514 Dwelling operators, except apartments
- 6515 Mobile home site operators
- 6517 Railroad property lessors
- 6519 Real property lessors, nec
- 6531 Real estate agents and managers
- 6541 Title abstract offices
- 6552 Subdividers and developers, nec
- 6553 Cemetery subdividers and developers

Holding and Other Investment Offices

- 6712 Bank holding companies
- 6719 Holding companies, nec

6722 Management investment, open-end
6726 Investment offices, nec
6732 Educational, religious, etc. trusts
6733 Trusts, nec
6792 Oil royalty traders
6794 Patent owners and lessors
6798 Real estate investment trusts
6799 Investors, nec

Hotels and Other Lodging Places

7011 Hotels and motels
7021 Rooming and boarding houses
7032 Sporting and recreational camps
7033 Trailer parks and campsites
7041 Membership-basis organization hotels

Personal Services

7211 Power laundries, family and commercial
7212 Garment pressing and cleaners' agents
7213 Linen supply
7215 Coin-operated laundries and cleaning
7216 Dry cleaning plants, except rug
7217 Carpet and upholstery cleaning
7218 Industrial launderers
7219 Laundry and garment services, nec
7221 Photographic studios, portrait
7231 Beauty shops
7241 Barber shops
7251 Shoe repair and shoeshine shops
7261 Funeral service and crematories
7291 Tax return preparation services
7299 Miscellaneous personal services, nec

Business Services

7311 Advertising agencies
7312 Outdoor advertising services
7313 Radio, TV, publisher representatives
7319 Advertising, nec
7322 Adjustment and collection services
7323 Credit reporting services
7331 Direct mail advertising services
7334 Photocopying and duplicating services
7335 Commercial photography

7336 Commercial art and graphic design
7338 Secretarial and court reporting
7342 Disinfecting and pest control services
7349 Building maintenance services, nec
7352 Medical equipment rental
7353 Heavy construction equipment rental
7359 Equipment rental and leasing, nec
7361 Employment agencies
7363 Help supply services
7371 Computer programming services
7372 Prepackaged software
7373 Computer integrated systems design
7374 Data processing services
7375 Information retrieval services
7376 Computer facilities management
7377 Computer rental and leasing
7378 Computer maintenance and repair
7379 Computer related services, nec
7381 Detective and armored car services
7382 Security systems services
7383 News syndicates
7384 Photofinishing laboratories
7389 Business services, nec

Automotive Repair, Services, and Parking

7513 Truck rental and leasing, no drivers
7514 Passenger car rental
7515 Passenger car leasing
7519 Utility trailer rental
7521 Automobile parking
7532 Top and body repair and paint shops
7533 Auto exhaust system repair shops
7534 Tire retreading and repair shops
7536 Automotive glass replacement shops
7537 Automotive transmission repair shops
7538 General automotive repair shops
7539 Automotive repair shops, nec
7542 Car washes
7549 Automotive services, nec

Miscellaneous Repair Services

7622 Radio and television repair
7623 Refrigeration service and repair

7629 Electrical repair shops, nec
7631 Watch, clock, and jewelry repair
7641 Reupholstery and furniture repair
7692 Welding repair
7694 Armature rewinding shops
7699 Repair services, nec

Motion Pictures

7812 Motion picture and video production
7819 Services allied to motion pictures
7822 Motion picture and tape distribution
7829 Motion picture distribution services
7832 Motion picture theaters except drive-in
7833 Drive-in motion picture theaters
7841 Video tape rental

Amusement and Recreation Services

7911 Dance studios, schools, and halls
7922 Theatrical producers and services
7929 Entertainers and entertainment groups
7933 Bowling centers
7941 Sports clubs, managers, and promoters
7948 Racing, including track operation
7991 Physical fitness facilities
7992 Public golf courses
7993 Coin-operated amusement devices
7996 Amusement parks
7997 Membership sports and recreation clubs
7999 Amusement and recreation, nec

Health Services

8011 Offices and clinics of medical doctors
8021 Offices and clinics of dentists
8031 Offices of osteopathic physicians
8041 Offices and clinics of chiropractors
8042 Offices and clinics of optometrists
8043 Office and clinics of podiatrists
8049 Offices of health practitioners, nec
8051 Skilled nurse care facilities
8052 Intermediate care facilities
8059 Nursing and personal care, nec
8062 General medical and surgical hospitals
8063 Psychiatric hospitals

8069 Specialty hospitals, except psychiatric
8071 Medical laboratories
8072 Dental laboratories
8082 Home health care services
8092 Kidney dialysis centers
8093 Specialty outpatient clinics, nec
8099 Health and allied services, nec

Legal Services

8111 Legal services

Educational Services

8211 Elementary and secondary schools

8221 Colleges and universities
8222 Junior colleges
8231 Libraries
8243 Data processing schools
8244 Business and secretarial schools
8249 Vocational schools, nec
8299 Schools and educational services, nec

Social Services

8322 Individual and family services
8331 Job training and related services
8351 Child day care services
8361 Residential care
8399 Social services, nec

Museums, Botanical, Zoological Gardens

8412 Museums and art galleries
8422 Botanical and zoological gardens

Membership Organizations

8611 Business associations
8621 Professional organizations
8631 Labor organizations
8641 Civic and social associations
8651 Political organizations
8661 Religious organizations
8699 Membership organizations, nec

Engineering and Management Services

8711 Engineering services

8712 Architectural services
8713 Surveying services
8721 Accounting, auditing, and bookkeeping
8731 Commercial physical research
8732 Commercial nonphysical research
8733 Noncommercial research organizations
8734 Testing laboratories
8741 Management services
8742 Management consulting services
8743 Public relations services
8744 Facilities support services
8748 Business consulting, nec

Private Households

8811 Private households

Services, nec

8999 Services, nec

Executive, Legislative, and General

9111 Executive offices
9121 Legislative bodies
9131 Executive and legislative combined
9199 General government, nec

Justice, Public Order, and Safety

9211 Courts
9221 Police protection
9222 Legal counsel and prosecution
9223 Correctional institutions
9224 Fire protection
9229 Public order and safety, nec

Finance, Taxation, and Monetary Policy

9311 Finance, taxation, and monetary policy

Administration of Human Resources

9411 Administration of educational programs
9431 Administration of public health programs
9441 Administration of social and manpower programs
9451 Administration of veterans' affairs

Environmental Quality, and Housing

9511 Air, water, and solid waste management
9512 Land, mineral, wildlife conservation
9531 Housing programs
9532 Urban and community development

Administration of Economic Programs

9611 Administration of general economic programs
9621 Regulation, admin. of transportation
9631 Regulation, administration of utilities
9641 Regulation of agricultural marketing
9651 Regulation of misc. commercial sectors
9661 Space research and technology

National Security and International Affairs

9711 National security
9721 International affairs

Nonclassifiable Establishments

9999 Nonclassifiable establishment

Appendix D California Waste Codes

California Nonrestricted Wastes

Inorganics

- 121. Alkaline solution (pH > or = 12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, or zinc)
- 122. Alkaline solution without metals (pH > or = 12.5)
- 123. Unspecified alkaline solution
- 131. Aqueous solution ($2 < \text{pH} < 12.5$) containing reactive anions (azide, bromate, chlorate, cyanide, fluoride, hypochlorite, nitrite, perchlorate, and sulfide anions)
- 132. Aqueous solution with metals (< restricted levels and see 121)
- 133. Aqueous solution with total organic residues 10 percent or more
- 134. Aqueous solution with total organic residues less than 10 percent
- 135. Unspecified aqueous solution
- 141. Off-specification, aged, or surplus inorganics
- 151. Asbestos-containing waste
- 161. FCC waste
- 162. Other spent catalyst
- 171. Metal sludge (see 121)
- 172. Metal dust (see 121) and machining waste
- 181. Other inorganic solid waste

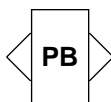
Organics

- 211. Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
- 212. Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)

- 213. Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
- 214. Unspecified solvent mixture
- 221. Waste oil and mixed oil
- 222. Oil/water separation sludge
- 223. Unspecified oil-containing waste
- 231. Pesticide rinse water
- 232. Pesticides and other waste associated with pesticide production
- 241. Tank bottom waste
- 251. Still bottoms with halogenated organics
- 252. Other still bottom waste
- 261. Polychlorinated biphenyls and material containing PCBs
- 271. Organic monomer waste (includes unreacted resins)
- 272. Polymeric resin waste
- 281. Adhesives
- 291. Latex waste
- 311. Pharmaceutical waste
- 321. Sewage sludge
- 322. Biological waste other than sewage sludge
- 331. Off-specification, aged, or surplus organics
- 341. Organic liquids (nonsolvents with halogens)
- 342. Organic liquids with metals (see 121)
- 343. Unspecified organic liquid mixture
- 351. Organic solids with halogens
- 352. Other organic solids

Solids

- 411. Alum and gypsum sludge
- 421. Lime sludge
- 431. Phosphate sludge
- 441. Sulfur sludge
- 451. Degreasing sludge



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- 461. Paint sludge
 - 471. Paper sludge/pulp
 - 481. Tetraethyl lead sludge
 - 491. Unspecified sludge waste

Miscellaneous

- 511. Empty pesticide containers 30 gallons or more
- 512. Other empty containers 30 gallons or more
- 513. Empty containers less than 30 gallons
- 521. Drilling mud
- 531. Chemical toilet waste
- 541. Photochemicals/photoprocessing waste
- 551. Laboratory waste chemicals
- 561. Detergent and soap
- 571. Fly ash, bottom ash, and retort ash
- 581. Gas scrubber waste
- 591. Baghouse waste
- 611. Contaminated soil from site clean-ups
- 612. Household wastes
- 613. Auto-shredder waste

- 731. Liquids with polychlorinated biphenyls > or = 50 Mg/L
- 741. Liquids with halogenated organic compounds > or = 1000 Mg/L
- 751. Solids or sludges with halogenated organic compounds > or = 1000 mg/Kg
- 791. Liquids with pH < or = 2
- 792. Liquids with pH < or = 2 with metals
- 801. Waste potentially containing dioxins

California Restricted Wastes

- 711. Liquids with cyanides > or = 1000 Mg/L
- 721. Liquids with arsenic > or = 500 Mg/L
- 722. Liquids with cadmium > or = 100 Mg/L
- 723. Liquids with chromium(VI) > or = 500 Mg/L
- 724. Liquids with lead > or = 500 Mg/L
- 725. Liquids with mercury > or = 20 Mg/L
- 726. Liquids with nickel > or = 134 Mg/L
- 727. Liquids with selenium > or = 100 Mg/L
- 728. Liquids with thallium > or = 130 Mg/L



California Environmental Protection Agency
 Department of Toxic Substances Control
 Office of Pollution Prevention and Technology Development
 Technology Clearinghouse

Publications List

The Office of Pollution Prevention and Technology Development (OPPTD) within the Department of Toxic Substances Control (DTSC) provides this Publications List for your convenience. The Pollution Prevention Program supplies information on how to implement alternatives to the generation of hazardous pollutants (pollution prevention). The Technology Certification Program evaluates and certifies the performance of environmental technologies. The first seven copies of documents are available at no cost. Additional copies may be purchased at the prices listed. Reference copies are located at select California Repository Libraries. More DTSC information is available from our website at <http://www.dtsc.ca.gov>. Thank you for your interest in improving our environment. We hope this information will be useful.



HAZARDOUS WASTE SOURCE REDUCTION AND MANAGEMENT REVIEW ACT OF 1989

The preferred approach to waste minimization is source reduction. Source reduction is any activity that prevents or reduces the generation of hazardous waste. Source reduction does not include reducing the volume or toxicity after the hazardous waste is generated.

Doc. No.	Title	Price
001 <i>Updated</i>	Guidance Manual for Complying with the Hazardous Waste Source Reduction and Management Review Act of 1989 (2000, 124 pp.) SB 14 requires generators to examine current hazardous waste generating processes for hazardous waste minimization opportunities and create a plan to implement workable alternatives. Generators of hazardous waste in excess of amounts specified in SB 14 must prepare a Source Reduction Evaluation Review and Plan, a Hazardous Waste Management Performance Report, and a Summary Progress Report according to a fixed time schedule. —website: http://www.dtsc.ca.gov/sppt/pptd	\$10.00

002	SB 14 Update (1998, 1 pg.) This brochure highlights the most recent changes to SB 14. The brochure discusses changes in applicability, new waste stream exemptions, and the newly mandated Summary Progress Report which must be submitted to the DTSC. The brochure also includes a brief summary of some of the existing requirements of this law.	Free
003 <i>Updated</i>	Summary Progress Report for Complying with the Hazardous Waste Source Reduction and Management Review Act of 1989 (2000, 16 pp.) SB 14 generators, including small businesses, are required to submit the Summary Progress Report to DTSC by September 1, 1999. This document contains three forms and detailed instructions on how to prepare the Summary Progress Report. —website: http://www.dtsc.ca.gov/sppt/pptd	\$1.00
004 <i>Updated</i>	Compliance Checklist for Complying with the Hazardous Waste Source Reduction and Management Review Act of 1989 (2000, 44 pp.) The revised Compliance Checklist serves as a substitute format for the Source Reduction Evaluation Review and Plan. It also contains the Summary Progress Report. The Compliance Checklist can be used by small businesses only. —website: http://www.dtsc.ca.gov/sppt/pptd	\$2.00

- 006** **Pollution Prevention Planning - A Citizen's Guide to Hazardous Waste Source Reduction (1997, 1 pg.)** **Free**

The Citizen's Guide explains the purposes and requirements of SB 14 to the public. The guide explains the term "source reduction" and discusses what information SB 14 regulated businesses must provide in the Source Reduction Plan and Management Performance Report documents. The guide also discusses the provision in the California Code of Regulations, Section 67100.3(b), which requires businesses to make their SB 14 documents available locally for public review.

- 007** **Diskette of Summary Progress Report for Complying with the Hazardous Waste Source Reduction and Management Review Act of 1989 (1999)** **Free**

Electronic, interactive version of Document No. 003 for IBM compatible PCs.

WASTE MINIMIZATION FACT SHEETS

A summary of waste minimization methods for specific industries.

Doc. No.	Title	Price
200	Pollution Prevention Can Work For You (1997, 6 pp.)	Free
	A summary of general hazardous waste minimization definitions and techniques for businesses.	
*201	Aerospace Industry (1992, 4 pp.)	Free
*202	Automotive Paint Shops (1992, 4 pp.)	Free
203	Automotive Repair Shops (1992, 4 pp.)	Free
*204	Building Construction (1993, 4 pp.)	Free
*205	Commercial Printing Industry (1992, 4 pp.)	Free
*206	Metal Finishers (1992, 4 pp.)	Free
*207	Paint Formulators (1992, 4 pp.)	Free
*208	Pesticide Formulating Industry (1992, 4 pp.)	Free
*209	Printed Circuit Board Manufacturers (1992, 4 pp.)	Free
*210	Decorative Plating with Trivalent Chrome (1992, 6 pp.)	Free
211	Research and Educational Institutions (1993, 4 pp.)	Free
212	Ceramic Products (1993, 4 pp.)	Free
213	Drug Manufacturing and Processing (1994, 6 pp.)	Free
215	Jewelry Manufacturing Industry (1995, 6 pp.)	Free

- 216** **Paint Manufacturers Can Save Money on Environmental Compliance Costs (1996, 4 pp.)** **Free**

HAZARDOUS WASTE MINIMIZATION CHECKLIST AND ASSESSMENT MANUALS

Manuals developed to aid manufacturers in evaluating their shops for waste minimization opportunities.

Doc. No.	Title	Price
402	Metal Finishing Industry (1993, 143 pp.)	\$10.00
405	Electronics Industry (1996, 76 pp.)	\$7.00
410	Jewelry Manufacturers (1994, 43 pp.)	\$4.00
411	Commercial Printing Industry (1994, 54 pp.)	\$5.00
413	Pollution Prevention Guide for Hospitals (1998, 148 pp.)	\$10.00

BIENNIAL REPORTS TO THE CALIFORNIA STATE LEGISLATURE

Doc. No.	Title	Price
*501	Pollution Prevention in California - An Overview of California's Pollution Prevention Programs (Sixth Biennial) (1992, 110 pp.)	Free
	An overview of California's multimedia pollution prevention programs at the State and local government levels. Industry pollution prevention case studies show how businesses respond to the pressure to reduce wastes.	

WASTE MINIMIZATION INFORMATION

Doc. No.	Title	Price
*505	Hazardous Waste Minimization Bibliography (1991, 76 pp.)	Free
	References are organized in four sections: (1) general hazardous waste minimization topics, (2) industry-specific, (3) material specific, and (4) available abstracts from the previous three sections. All references are listed in alphabetical order by title.	

* LIMITED TO STOCK ON HAND

506	Incinerable Hazardous Waste Minimization Project Fact Sheet (1992, 8 pp.) Provides an interim update for the project using 1990 data taken from the manifest system.	\$1.00
*508	Incinerable Waste Minimization Workshops Proceedings (1991, 251 pp.) A compilation of the papers presented at two workshops held in January 1991. Areas covered include: regulations, source reduction, recycling strategies and opportunities, alternative technologies for petroleum refineries, electronics industry, aerospace industry, and chemical and paint manufacturers.	Free
510	No-Waste Lab Manual for Educational Institutions (1991, 115 pp.) A laboratory manual for introductory chemistry courses incorporating procedures that produce little or no toxic waste. This is accomplished by the use of consecutive chemical reactions so that the production of one reaction is used as the starting material for the next.	\$10.00
517	Waste Minimization for Hazardous Materials Inspectors: Introductory Text with Self-Testing Exercises (Module I), Assessment Procedures (Module II, Unit 1), and Metal Finishing Industry (Module III) (1991, 182 pp.) Module I is written for use by both experienced and novice hazardous materials inspectors who wish to learn more about hazardous waste minimization. Module II provides basic information in conducting a self-assessment, and Module III focuses on some of the viable waste minimization alternatives for certain metal finishing operations. (Videotape also available-See Order #1500).	\$10.00
518	Waste Minimization Assessment Procedures: For the Generator (Module II, Unit 2) (1991, 81 pp.) Provides the hazardous waste generator with procedures for conducting a self-assessment and introduces the provisions of SB 14.	\$8.00
*526	Pollution Prevention 1993 - A Year in Review (1994, 96 pp.) Documents the significant accomplishments and activities that have been achieved by DTSC in the area of pollution prevention during calendar year 1993. The report highlights several very important projects which are being looked upon as national models.	Free

540 NEW	Pollution Prevention Accomplishments (1999, 41 pp.) This document is to report the significant accomplishments and activities of OPPTD between January 1996 and December 1998.	\$5.00
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LOCAL GOVERNMENT

Doc. No.	Title	Price
507	Hazardous Waste Reduction: A Step-by-Step Guidebook for California Cities (1992, 180 pp.) Outlines the essential elements of a successful city run, multimedia waste minimization program. It is designed to walk the user through steps the city can take to implement and reduce hazardous materials use and hazardous waste typically generated by city operations.	\$10.00
527	Marketing Pollution Prevention 101: A Simple Guide for Local Governments (1993, 43 pp.) Provides ideas to assist local agencies in getting industry more actively involved in pollution prevention programs. The guide has been developed by using information and case studies from various local agencies and consulting basic marketing techniques.	\$4.00

WASTE MINIMIZATION ASSESSMENTS OF SPECIFIC FACILITIES

Doc. No.	Title	Price
528	Assessment of the Aerospace Industry Facility Planning Efforts (1993, 100 pp.) Presents the results of the DTSC's assessment of the aerospace industry's source reduction review and planning effort as mandated under SB 14. The report discusses the review of about 90 facility summaries and 22 plans and reports.	\$10.00
529	Assessment of the Petroleum Industry Facility Planning Efforts (1993, 70 pp.) Presents the results of DTSC's assessment of the petroleum industry's source reduction review and planning effort mandated by SB 14. The report discusses the source reduction review of approximately 18 petroleum industry facilities.	\$10.00

* LIMITED TO STOCK ON HAND

530	Assessment of the Semiconductor Industry Source Reduction Planning Efforts (1994, 85 pp.)	\$8.00
	Presents the results of the DTSC's assessment of the semiconductor industry's source reduction review and planning effort as mandated under SB 14.	
531	Assessment of 1,1,1-Trichloroethane Users Source Reduction Efforts (1995, 125 pp.)	\$10.00
	More than forty different companies representing over thirty different industries submitted source reduction documents with 1,1,1-trichloroethane substitution information. Thirty-five abstracts explain how these companies are making the transition to other cleaners. Document call-in and review conducted under authority of SB 14.	
532	Assessment of Selected Paints and Allied Product Manufacturers Source Reduction Facility Planning Efforts (1995, 37 pp.)	\$4.00
	Summarizes the results of DTSC's assessment of the paint manufacturing industry's source reduction and facility planning efforts. DTSC requested and reviewed Plans and Reports from 26 facilities within this SIC Code (2851).	
533	Assessment of the Polymers and Resins Industry Hazardous Waste Source Reduction Planning Efforts (1996, 75 pp.)	\$7.00
	Presents the results of DTSC's assessment of the polymers and resins industry's source reduction review and planning effort as mandated under SB 14. DTSC requested and reviewed Plans and Reports from 31 facilities.	
534	Assessment of the Metal Finishing and Plating Industry Source Reduction Planning Efforts (1996, 62 pp.)	\$6.00
	Summarizes the results of the DTSC's assessment of the metal finishing and plating industry's source reduction efforts as mandated by SB 14. Plans and reports from 75 facilities were reviewed.	
536	Assessment of the Petroleum Industry Hazardous Waste Source Reduction Planning Efforts (1997, 91 pp.)	\$10.00
	This second assessment highlights several successful source reduction measures leading to significant reductions of hazardous waste generations, offers an interesting comparison of 1990 vs. 1994 source reduction progress, and discusses future plans.	

537	Assessment of Chemicals and Allied Products Industry Source Reduction Planning Efforts (1998, 106 pp.)	\$10.00
	Presents findings from DTSC's source reduction planning assessment of 40 facilities classified under seven SIC codes within the Chemicals and Allied Products Industry. This report contains descriptions of each of the 40 companies, discusses compliance issues, and lists source reduction measures for the industry.	
538 NEW	Assessment of California's Largest Hazardous Waste Generator's Source Reduction Effort (1998, 65 pp.)	\$5.00
	Presents DTSC's assessment of some of the largest hazardous waste generators source reduction planning efforts. SB 14 documents from 28 facilities from a wide range of industries were requested and reviewed for this report. Waste generation comparisons were made for the period 1990 to 1994 and beyond. Most facilities reported a decrease in hazardous waste generation.	
539 NEW	Source Reduction Technologies in California Printed Circuit Board Manufacture (1999, 30 pp.)	\$8.00
	Innovative technologies are discussed in this report. Most are commercially available, yet innovative in that they are new or improved technologies that offer economic and/or environmental advantages over conventional technologies.	

WASTE STREAM SPECIFIC INFORMATION


Doc. No.	Title	Price
607	Aqueous Alternatives to Solvent Cleaning (1994, 6 pp.)	\$1.00
	A summary of general information on many of the aqueous alternatives available to replace solvent cleaners.	
608	Alternatives to Chlorinated Solvents in Cleaning Applications (1994, 132 pp.)	\$10.00
	Discusses the chemical and process alternatives to chlorinated solvents in vapor degreasing, cold cleaning, printed circuit board deflusing and handwipe operations. The report also summarizes the air, water, and waste regulations that apply to alternatives. Detailed case studies demonstrate the issues that firms must consider when they are selecting an alternative.	

* LIMITED TO STOCK ON HAND

609	Simplified Guide for Evaluating Alternatives to Chlorinated Solvents in Cleaning Applications (1995, 22 pp.) Presents a simplified approach for evaluating alternatives to chlorinated solvents in various cleaning applications. This approach is based on a detailed cross-media analysis of the alternatives in vapor degreasings, cold cleaning, wipe cleaning and printed circuit board defluxing as described in Document Number 608. Written by Dr. Katy Wolf of the Institute of Research and Technical Assistance (IRTA).	\$2.00	614	Parts Cleaning in Auto Repair Facilities: The Conversion to Water (1997, 80 pp.) This report presents the results of the test and demonstration project summarized in Document Number 613. Information contained includes testing for technical feasibility, analysis of results, cost analysis and project findings and implications. Report also contains Material Safety Data Sheets for aqueous cleaning formulations used in the project.	\$8.00
610 <i>Updated</i>	Compliance Assistance PCB Self-Inspection Checklist for PCB Waste Generators (1999, 8 pp.) A checklist designed to approximate one that an inspector might use while examining a facility for PCB compliance. Also provides regulatory references to assist in locating further information or regulations concerning specific issues or sections of the checklist. Both federal and California state PCB regulations are discussed.	\$1.00	615	Appendices to Parts Cleaning in Auto Repair Facilities: The Conversion to Water (1997, 250 pp.) These appendices present the water quality data collected in the test and demonstration project summarized in Document Number 613 and reported in 614. Data printouts include listing of inorganic and organic laboratory results.	\$10.00
611	Parts Cleaning Alternatives in Machine Shops (1995, 16 pp.) A guide to assist shop operators in the evaluation and adoption of alternatives to the use of 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113) and 1,1,1-trichloroethane (TCA) for parts cleaning. These two chlorinated solvents have been banned as of January 1, 1996. The report is also a primer for those interested in pollution prevention strategies for machine shops.	\$2.00	616 <i>NEW</i>	Switching to Water-Based Cleaners in Repair and Maintenance Parts Cleaning (1999, 2 pp.) This two-page brochure provides specific information on water-based cleaning systems, formulations, costs, regulatory concerns and frequently asked questions and answers related to repair and maintenance parts cleaning in auto repair shops and other maintenance parts cleaning.	\$2.00
612	Waste Management for Painters (1997, 3 pp.) Explains practical waste management methods to eliminate or reduce waste generation, and safely recycle or dispose of leftover paint waste, wash water, containers and used equipment.	Free	617 <i>NEW</i>	Water-Based Parts Washer Systems: A Guidance Program for Users (1999, 3 pp.) This document presents detailed information on water-based cleaning systems and formulations used widely in auto repair facilities as a also replacement for mineral spirits cleaning systems. Document analyzes state and federal hazardous waste regulations that affect the transition from mineral spirits to water-based cleaning.	\$4.00
613	Parts Cleaning in Auto Repair Facilities: The Conversion to Water Executive Summary (1997, 4 pp.) Provides a brief overview of the results of a test and demonstration project in Los Angeles, California for water-based cleaning systems in auto repair facilities. Four types of equipment were investigated including a sink-on-a-drum remote reservoir configuration, an immersion system, an enzyme unit and a spray cabinet. Four water-based cleaning formulations were tested: three were alkaline cleaners and one was an enzyme cleaner.	Free	618 <i>NEW</i>	Water-Based Parts Washer Systems: Case Study Conversions (1999, 29 pp.) This reports presents the results of case studies in auto repair and industrial facilities using water-based cleaning systems and formulations. Four generic types of equipment and four water-based cleaning formulations were tested at various concentrations. The case studies contain feasibility and cost information as well as ways to optimize use of equipment and cleaners.	\$4.00

*** LIMITED TO STOCK ON HAND**

619(a) <i>NEW</i>	Switching to Water-Based Cleaners for Automotive Brake Cleaning, (1999, 2 pp.) This two-page brochure provides specific information on water-based cleaning systems, formulations, costs, regulatory concerns and frequently asked questions related to automotive brake cleaning.	\$2.00
619(b) <i>NEW</i>	Cambiando Al Limpiador A Base De Agua Para La Limpieza De Frenos Automotriz (1999, 2 pp.) Este folleto provee información específica de sistemas de limpiar a base de agua, formulaciones, costos, problemas de regulación y preguntas comunmente hechas relativo a limpieza de frenos automotriz.	\$2.00
620 <i>NEW</i>	Brake Cleaning in Automotive Repair Facilities: The Conversion to Water (1999, 113 pp.) This document presents detailed information on water-based cleaning systems and formulations used widely for automotive brake cleaning as a replacement for perchloroethylene (PERC). Document analyzes State and federal hazardous waste regulations that affect the transition from PERC to water-based cleaning.	\$8.00
621 <i>NEW</i>	Seven (7) Case Studies: The Conversion to Water-Based Cleaners for Automotive Brake Cleaning in Los Angeles (1999, 7 pp.) (English and Spanish) This collection of seven, one-page case studies presents a thumbnail sketch of water-based cleaning systems and formulations used in seven shops in the Los Angeles area. Equipment, cleaner, and disposal costs for aerosol brake versus water-based brake cleaning systems are compared. Side one in English with flip side in Spanish.	\$5.00

<div> ENVIRONMENTAL TECHNOLOGY CERTIFICATION / VERIFICATION PROGRAM  </div> <div> <i>Hazardous waste environmental technologies are evaluated for certification by the State of California and/or verification by a joint Cal/EPA-U.S. EPA Pilot Project.</i> </div>		
Doc. No.	Title	Price
700	California Hazardous Waste Environmental Technology Certification Program-Program Summary, August 1998 (1998, 3 pp.)	Free
701	Technology Transfer Advisories (1999, 33 pp.) A brief 1-2 page description of each of the certified technologies.	\$4.00
702	California Environmental Technology Verification (ETV) Pilot Program - Pollution Prevention and Waste Treatment Technologies (1998, 3 pp.) A summary of joint Cal/EPA - U.S. EPA ETV Pilot Program. The purpose of this pilot program is to verify the performance of commercial-ready technology through objective and quality-assured data.	Free
703	Hazardous Waste Environmental Technology Certification Program - Process Description (1997, 14 pp.) This document describes the process used by DTSC to evaluate the technologies for the Hazardous Waste Environmental Technology Certification Program. The process description includes a flow chart and narrative which gives a brief description of each of the process steps.	\$2.00
704	California Hazardous Waste Environmental Technology Certification Program - Part I Application Instructions (1998, 12 pp.) The Part I Application Instructions provide you with the information needed to request evaluation of your technology through the Hazardous Waste Environmental Technology Certification Program. Applicants meeting eligibility and program screening criteria will be asked to submit a Part II Application which provides detailed supporting information and data relative to specific performance claims identified.	\$2.00

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- 710 General Acceptance Criteria and Standards \$1.00**
Guidance for the Verification of Environmental Technologies (1998, 10 pp.)
 This document outlines the data quality acceptance and quality control criteria to be used in the verification of environmental technologies.
- 711 Acceptance Criteria, Performance and \$4.00**
Process Guidance for the Certification of Bioremediation Technologies (1998, 38 pp.)
 This document delineates information needs, minimum criteria to be met and a process to be followed for the performance certification of biotechnologies.
- 712 Performance-based Certification of \$5.00**
Hazardous Waste Measurement and Monitoring Technologies (1998, 49 pp.)
 Protocol describes documents and performance data required for the evaluation of measurement and monitoring technologies. Such technologies are used in site characterization, environmental field testing, sampling, sample preparation methods, and analysis by instrumental, chemical and biological methods.
- 713 Technology Evaluation Work Plan - \$2.00**
Rechargeable Alkaline Battery System (1998, draft, 17 pp.)
 Technology Evaluation work plan for rechargeable alkaline battery system certification. (Originally drafted for the Rayovac Renewal® Rechargeable Battery System evaluation.)
- 730 Technology Evaluation Work Plan - Smart \$3.00**
Sonic Ultrasonic Aqueous Cleaning System (1998, 26 pp.)
 Workplan for evaluation for the SMART SONIC ultrasonic aqueous cleaning system. It describes the protocol for evaluation, including testing by the South Coast Air Quality Management District, user interviews and on-site visits. (Verification Report available separately as #750).
- 750 Technology Verification Report - Smart \$5.00**
Sonic Ultrasonic Aqueous Cleaning System (1999, 43 pp.)
 Final Report for Verification (and California Certification) of the SMART SONIC ultrasonic aqueous cleaning system. It describes how the SMART SONIC system cleans lead solder from printed circuit board stencils.

- 751 Technology Verification Report-Rayovac \$5.00**
Renewal® Rechargeable Alkaline Battery System (1999, 47 pp.)
 Final Report describes the Rayovac Renewal® System which was verified as a pollution prevention technology that replaces up to ten nonrechargeable alkaline batteries of the same size.

ALTERNATIVE TECHNOLOGY

New and innovative alternative technologies.

Doc. No.	Title	Price
*1212	Alternative Technology Demonstration Project Report - Use of Kerr McGee Chemical Corporation Boiler Fly Ash as a Feedstock in the Manufacturing of Southwestern Portland Cement (1992, 9 pp.) This project determined that the use of Kerr McGee fly ash as an ingredient in the manufacture of Portland Cement resulted in a cement product that effectively stabilized hazardous levels of nickel and vanadium present in the ash ingredient.	Free
*1217	California Environmental Technologies and Services Directory Diskette (1994) An alphabetical listing of over 1,100 California environmental companies and a series of technology matrices giving detailed information about the company's involvement in the environmental industry. The Directory is only available on disk.	Free

REMEDIAL TECHNOLOGY INFORMATION

Doc. No.	Title	Price
1350	Remedial Technology Applications Matrix for Soils and Sludges (1991, 16 pp.) The Remedial Technology Applications Matrix was developed to identify treatment technologies applicable to treating contaminated soils and sludges that should be considered for hazardous waste site cleanup.	\$2.00

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VIDEOS

Doc. No.	Title	Price
1500	Waste Minimization for Inspectors (Videotape of a slide show) (1991, 44 minutes) A three-section videotape of a slide show that provides a basic introduction to waste minimization and assessment procedures and an excellent overview of waste minimization processes involved in metal cleaning, metal finishing and printed circuit board manufacturing.	\$10.00
1501	Why Waste?: Waste Minimization for Today's Businesses (1990, 28 minutes) Defines waste minimization and illustrates waste minimization successes in several different types of businesses. Source reduction and recycling case studies illustrate the environmental and economic benefits of implementing waste minimization program. Is useful for training sessions and seminars focusing on innovative ways for reducing hazardous waste.	Free
1502	The Surfer, the Garbageman, and the Lady in the Sky (1993, 15 minutes) A videotape written, directed and produced by high school students that chronicles personal responsibilities relating to hazardous waste generation, resource conservation and pollution prevention. The accompanying workbook, "Economics and the Environment: Teamed for Success," provides a guide to teachers for class discussions and assignments through a series of case studies, interviews, and research materials. This is accomplished through presentations on the economic and environmental pros and cons of certain personal and business decisions related to using hazardous materials, energy, and natural resources.	Free

POLLUTION PREVENTION CASE STUDIES

Doc. No.	Title	Price
1600	Zero Water Discharge in the Metal Plating Industry Using an Improved Ion Exchange Process (1996, 6 pp.)	\$1.00
*1601	Monsanto: The Synergy Between Total Quality and Pollution Prevention (1996, 8 pp.) Source reduction measures implemented at a catalyst manufacturing facility.	\$1.00

WESTERN REGIONAL POLLUTION PREVENTION NETWORK (WRPPN) WEB PAGE-

www.westp2net.org

Get the expertise of retired industrial professionals with experience in manufacturing and industrial processes to solve your nonregulatory pollution prevention questions by contacting DTSC at 1-800-700-5854.

FOR FURTHER INFORMATION VISIT THESE WEBSITES:

Other documents and executive summaries are available online through the California Environmental Protection Agency (Cal/EPA) Home Page. Use the following Uniform Resource Locators (URLs) to find the web page for Cal/EPA, DTSC and OPPTD. The Cal/EPA web page has a hypertext link to DTSC. The DTSC web page has a hypertext link to OPPTD. The following are the web page addresses:

Cal/EPA: <http://www.calepa.ca.gov/>

DTSC: <http://www.dtsc.ca.gov/>

OPPTD: <http://www.dtsc.ca.gov/sppt/pptd>

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☐ Consulting Firm ☐ Environmental Organization ☐ Other (please specify) _____
☐ Elected Official ☐ University

Appendix F Certified Unified Program Agencies, Designated County Agencies, and Participating Agenices

Alameda County

Alameda County Environmental Health
Mr. Ariu Levi, Division Chief
1131 Harbor Bay Parkway, #240
Alameda, CA 94502-6577
Phone: (510) 567-6862
Fax: (510) 337-9335
Email: alevi@co.alameda.ca.us

Berkeley City Toxics Management Division
Mr. Nabil Al-Hadithy
Hazardous Materials Supervisor
2118 Milvia Street, Suite 200
Berkeley, CA 94704
Phone: (510) 705-8155
Fax: (510) 540-5672
Email: naa2@ci.berkeley.ca.us

Fremont City Fire Dept
Mr. Bill Reykalin, Fire Marshall
39100 Liberty Street
Fremont, CA 94538
Phone: (510) 494-4213
Fax: (510) 494-4822
Email: breykalin@ci.fremont.ca.us

Hayward City Fire Dept
Hazardous Materials Program
Mr. Hugh Murphy
777 B Street
Hayward, CA 94541
Phone: (510) 583-4924
Fax: (510) 583-3641
Email: hughm@ci.hayward.ca.us

Livermore - Pleasanton City Fire Dept
Ms. Danielle Stefani
4550 East Avenue
Livermore, CA 94550
Phone: (510) 454-2362
Fax: (510) 454-2367
Email: dstefani@lpfire.org

Newark City Fire Department
Ms. Jackie Bretschneider
Hazardous Materials Coordinator
37101 Newark Boulevard
Newark, CA 94560
Phone: (510) 790-7254
Fax: (510) 790-7281
Email: Jackie.bretschneider@newark.org

Oakland City Fire Dept
Mr. Leroy Griffin
1605 Martin Luther King Jr Way
Oakland, CA 94612
Phone: (510) 238-7759
Fax: (510) 238-7761
Email: lgriffin@oaklandnet.com

San Leandro City
Mr. Michael Bakaldin
835 E 14th Street
San Leandro, CA 94577
Phone: (510) 577-3331
Fax: (510) 577-3295
Email: Mbakaldin@ci.sanleandro.ca.us

* Designated County Agency (not a CUPA) ** Participating Agency

Union City
Mr. Jay Swardenski
34009 Alvarado-Niles Road
Union City, CA 94587-4497
Phone: (510) 471-3232
Fax: (510) 475-7318
Email: jswardenski@ci.union-city.ca.us

Alpine County

Alpine County Health Dept
Mr. James Goodloe
PO Box 545
Markleeville, CA 96120
Phone: (530) 694-2146
Fax: (530) 694-2770

Amador County

Amador County Environmental Health
Mr. Michael Israel
500 Argonaut Lane
Jackson, CA 95642
Phone: (209) 223-6439
Fax: (209) 223-6228

Butte County

Butte County Environmental Health*
Mr. Thomas Reid, Director
18 B County Center Drive
Oroville, CA 95965
Phone: (530) 891-2727
Fax: (530) 895-6512
Email: vseverin@buttecounty.net

Calaveras County

Calaveras County Environmental Health*
Mr. Brian Moss, Director
Government Center
891 Mountain Ranch Road
San Andreas, CA 95249
Phone: (209) 754-6399
Fax: (209) 754-6722
Email: Bmoss@co.calaveras.ca.us

Colusa County

Colusa County Environmental Health*
Mr. Jaime Favila, Director
251 E. Webster Street
Colusa, CA 95932
Phone: (530) 458-0397
Fax: (530) 458-4136
Email: ccenv@colusanet.com

Contra Costa County

Contra Costa County Health Services Dept
Mr. Lewis Pascalli, Deputy Director
4333 Pacheco Blvd
Martinez, CA 94553-2295
Phone: (925) 646-2286
Fax: (925) 646-2073
Email: lpascalli@hsd.co.contracosta.ca.us

Del Norte County

Del Norte County Dept. Of Health & Social Services
Mr. Leon A. Perrleault
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* Designated County Agency (not a CUPA) ** Participating Agency

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Kern County

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* Designated County Agency (not a CUPA) ** Participating Agency

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Los Angeles County

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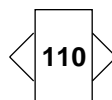
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* Designated County Agency (not a CUPA) ** Participating Agency

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Fax: (805) 525-6660
Email: raraiza@ci.santa-paula.ca.us

Ventura City Fire Department **
Mr. Brian Clark
501 Poli Street
PO Box 99
Ventura, CA 93002-0099
Phone: (805) 654-7794
Fax: (805) 447-1595
Email: bclark@ci.ventura.ca.us

Ventura County Environmental Health
Mr. Greg Smith
800 South Victoria Avenue
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Fax: (805) 477-1595
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Yolo County

Yolo County Environmental Health
Mr. Bruce Sarazin, Supervising Hazmat Specialist
10 Cottonwood
Woodland, CA 95695
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Fax: (530) 666-8664
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Yolo County OES **
Ms. Marcele Christofferson
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Yuba County

Yuba County Office Of Emergency Services*
Mr. Kelly Purdom
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Last Updated August 1, 2000

* Designated County Agency (not a CUPA) ** Participating Agency

Appendix G Completeness Lists for the Plan and Report

Source Reduction Evaluation Review and Plan List

The following list will be helpful in determining completeness of a Hazardous Waste Source Reduction Evaluation Review and Plan. The Department of Toxic Substances Control uses a similar approach to determine whether or not a Review and Plan has met the minimum requirements necessary to comply with the Hazardous Waste Source Reduction and Management Review Act of 1989.

The Office of Pollution Prevention and Technology Development suggests that you verify your Plan's completeness by checking each item and including the page number where the information can be found in your Plan. It may be helpful to include the completed list in front of your Plan.

This requirement
is in the Plan on
page: _____

- | | | |
|--|--|-------|
| 1. Is the generator's name, address, telephone number and Identification Number in the Plan? (CCR Section 67100.5(a)) | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| 2. Is the address the same location where waste is generated? | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| If no, is there a given address where waste is generated? | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| 3. Is the four-digit SIC code(s) for the site in the Plan? (CCR Section 67100.5(b)) | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| 4. Is the generator a small business? (CCR Section 67100.2(g)) | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| If yes, is a DTSC Waste Audit Study Checklist being used? | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| (If yes, see Waste Audit Study Checklist for content requirements.) | | |
| 5. Is the Plan addressing a multi-site operation? | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| If yes, are all the sites' addresses listed in the Plan? | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| (If no, this Plan is incomplete.) | | |
| 6. Is there a description of the business and waste generating activities in the Plan? (CCR Section 67100.5(c)) | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| 7. Is the length of time the company has been in operations at the present site provided in the Plan? (CCR Section 67100.5(d)) | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| 8. Are the major manufactured products and services provided by the business described in the Plan? (CCR Section 67100.5(e)) | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| 9. Are the number of employees working at the site given in the Plan? (CCR Section 67100.5(f)) | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |

This requirement
is in the Plan on
page: _____

10. Is there a general description of the operations of the site in the Plan? ☐ Yes ☐ No
(CCR Section 67100.5(g)) _____

11. Does the Plan identify all routinely-generated hazardous waste streams which result from ongoing processes or operations having a yearly volume, or comparable weight, that exceeds five percent of the total yearly volume, or comparable weight, of hazardous waste at the site? (CCR Section 67100.5(h)) ☐ Yes ☐ No _____

For each hazardous waste stream identified in 11 above,

12. Does the Plan provide an estimate of the weight, in pounds, of waste generated at the site? (CCR Section 67100.5(i)(1)) ☐ Yes ☐ No _____

13. Does the Plan provide the applicable California Waste Code(s) for each waste stream? (CCR Section 67100.5(i)(2)) ☐ Yes ☐ No _____

14. Are the waste generating processes, operations and activities (along with corresponding diagrams) described in the Plan? (CCR Section 67100.5(i)(3)) ☐ Yes ☐ No _____

15. Do the processes, operations and activities described include a listing of all input materials contributing to the generation of waste? (CCR Section 67100.5(i)(3)) ☐ Yes ☐ No _____

16. Is there an evaluation of available source reduction measures? (CCR Section 67100.5(j)) ☐ Yes ☐ No _____

17. Do the evaluations of source reduction measures consider the following approaches: (CCR Section 67100.5(j))

Input changes? ☐ Yes ☐ No ☐ N/A _____

Operational improvements? ☐ Yes ☐ No ☐ N/A _____

Production process changes? ☐ Yes ☐ No ☐ N/A _____

Product reformulation ☐ Yes ☐ No ☐ N/A _____

Administrative steps? ☐ Yes ☐ No ☐ N/A _____

This requirement
is in the Plan on
page:

18. Do the evaluations of source reduction measures consider the following factors: (CCR Section 67100.5(k))

Expected change in the amount of hazardous waste generated?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	_____
Technical feasibility?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	_____
Economic evaluation?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	_____
Effects on product quality?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	_____
Employee health and safety implications?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	_____
Permits, variances, compliance schedules of applicable State, local and federal agencies?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	_____
Releases and discharges?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	_____

19. Does the Plan provide information, such as waste stream constituents and concentrations, pertinent to the evaluation of the source reduction approaches? (CCR Section 67100.5(l)) ☐ Yes ☐ No _____

20. Is there a specification of, and a rationale for, each technically feasible and economically practicable source reduction measure(s) being proposed in the Plan for implementation? (CCR Section 67100.5(m)) ☐ Yes ☐ No _____

If yes, does the specification include at a minimum a narrative description of the factors in 67100.5(k) and address system capacity and efficiency? ☐ Yes ☐ No _____

21. Is there an evaluation and, to the extent practicable, a quantification of the effects of the chosen source reduction measure(s) on emissions and discharges to air, water, or land? (CCR Section 67100.5(n)) ☐ Yes ☐ No _____

22. Is there a list of alternatives considered but not selected for a detailed evaluation as a potentially viable source reduction approach? (CCR Section 67100.5(o)) ☐ Yes ☐ No _____

23. For each alternative rejected, is there a rationale for rejection? (CCR Section 67100.5(o)) ☐ Yes ☐ No _____

24. Is there a timetable for making reasonable and measurable progress towards implementing and completing the selected source reduction measures? (CCR Section 67100.5(p)) ☐ Yes ☐ No _____

25. Is there an implementation schedule that prioritizes processes and wastes for future research, development and source reduction analysis? (CCR Section 67100.5(p)) ☐ Yes ☐ No _____

26. Does the Plan contain a four-year numerical goal for reducing the generation of hazardous waste streams through the selected source reduction measures? (CCR Section 67100.5(q))

☐ Yes ☐ No

This requirement
is in the Plan on
page:

27. Is the Plan properly certified? (CCR Section 67100.13)

Technical Certification

☐ Yes ☐ No

Financial Certification

☐ Yes ☐ No

Hazardous Waste Management Performance Report List

The following list will be helpful in determining completeness of a Hazardous Waste Management Performance Report. The Department of Toxic Substances Control uses a similar approach to determine whether or not a Performance Report has met the minimum requirements necessary to comply with of the Hazardous Waste Source Reduction and Management Review Act of 1989.

The Office of Pollution Prevention and Technology Development suggests that you verify your Report's completeness by checking each item and including the page number where the information can be found in your Report. It may be helpful to include the completed list in front of your Report.

This requirement
is in the Report on
page: _____

1. Is the generator's name and address given in the Report? (CCR Section 67100.8(a)(1)) ☐ Yes ☐ No _____

2. Is the address the same location where the waste is generated? ☐ Yes ☐ No _____
If no, is there a given address where waste is generated? ☐ Yes ☐ No _____

3. Is the four-digit SIC code(s) for the site given? (CCR Section 67100.8(a)(2)) ☐ Yes ☐ No _____

4. Is the generator a small business? (CCR Section 67100.2(f)) ☐ Yes ☐ No _____
If yes, did the generator use the most recent USEPA Hazardous Waste Report instead of writing a Performance Report? ☐ Yes ☐ No _____

5. Is the Report addressing a multi-site operation? ☐ Yes ☐ No _____
If yes, are all the sites' addresses listed in the Report? ☐ Yes ☐ No _____
(If no, the Report is incomplete.)

6. Is the baseline year clearly stated in the Report? ☐ Yes ☐ No _____

7. Is the reporting year clearly stated in the Report? ☐ Yes ☐ No _____

8. Is the reporting year the same as the baseline year and so stated in the Report? ☐ Yes ☐ No _____
(If no years are given, the Report is incomplete.)

This requirement
is in the Report on
page:

9. Does the Report identify all routinely-generated hazardous waste streams which result from ongoing processes or operations having a yearly volume, or comparable weight, that exceeds five percent of the total yearly volume, or comparable weight, of hazardous waste at the site? (CCR Section 67100.8(a)(3)) ☐ Yes ☐ No _____

For each hazardous waste stream identified in 9 above,

10. Does the Report provide an estimate of the quantity, in pounds, of waste generated and managed, both on-site and off-site, during the current reporting year and the baseline year? (CCR Section 67100.8(a)(3)(A)) ☐ Yes ☐ No _____

11. Is there a listing and description of current hazardous waste management approaches implemented since the baseline year? (CCR Section 67100.8(a)(3)(B)) ☐ Yes ☐ No _____

12. Is there an assessment of the effectiveness of each hazardous waste management approach implemented since the baseline year? (CCR Section 67100.8(a)(3)(C)) ☐ Yes ☐ No _____

13. Does the assessment of implemented waste management approaches consider the following: (CCR Section 67100.8(a)(3)(C))

Source Reduction?	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
On-site or off-site recycling?	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
On-site or off-site treatment?	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____

14. If applicable, does the Report describe factors that, during the period between the baseline year and the current reporting year, have affected hazardous waste generation and on-site and off-site hazardous waste management practices? (CCR Section 67100.8(a)(3)(D)) ☐ Yes ☐ No _____

15. When describing factors affecting hazardous waste management practices at the site, did the generator consider:

Changes in business activity?	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Changes in waste classification?	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Natural phenomena?	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____

16. Is the Report properly certified? (CCR Section 67100.13)

Technical Certification	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Financial Certification	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____

